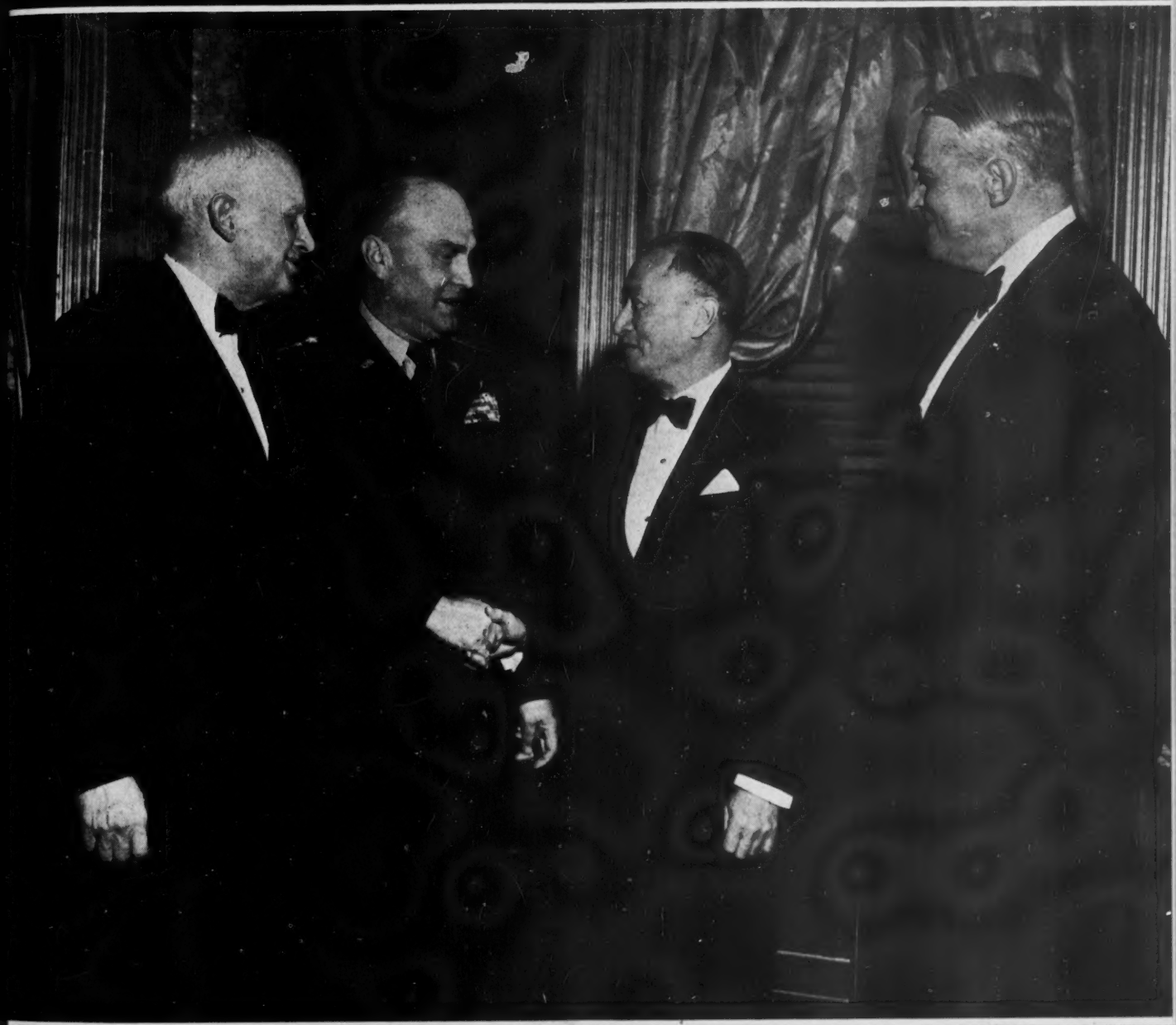
In Two Parts—Part

January 1947

Industrial

Standardization



Twenty-Eighth Annual Meeting Issue

American Standards Association

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Some 2000 industrial concerns hold membership either directly or by group arrangement through their respective trade associations

Who's Who— Among the Speakers At the Annual Meeting

Ephraim Freedman—

A Fellow of the American Institute of Chemists and a licensed professional engineer, Mr Freedman has held the post of director of Macy's Bureau of Standards since August, 1927. As a member of the Policy Committee on Standards to the Secretary of Commerce of the United States, he has an important role in the development of the national standards program.

In addition to being first vice president and chairman of the research committee of the American Association of Textile Technologists, Mr Freedman is a director of the New York Board of Trade's Textile Section. He takes an active part in the ASA work on consumer standards through his membership on the Advisory Committee on Ultimate Consumer Goods of the ASA. He is also a member of several committees of the American Society for Testing Materials.

He has conducted numerous studies, especially in textiles, on which he has reported to many clubs and other organizations.

Carol Willis Moffett—

Elected to the ASA Board of Directors in May, 1946, Mrs Moffett's participation in the development of consumer standards goes back many years to her early awareness of the need for standard definitions of quality and performance for consumer goods.

In 1933 she originated the Better Buymanship bulletins for Household Finance Corporation and wrote 17 of them with frequent revisions until May, 1936. She has since written extensively on many phases of consumer problems, her work being published by the Bureau of Home Economics of the U. S. Department of Agriculture, the Public Affairs Committee, Inc, and the *Journal of Home Economics.*

Prominent in leading consumer organizations, Mrs Moffett served as vice chairman of the Advisory Committee on Ultimate Consumer Goods from 1941 to 1943. She is chairman of the teacher-retailer committee of the National Consumer-Retailer Council, Inc, and a member of the American Home Economics Association, the American Association of University Women, and the League for Women Voters.

An enthusiastic participant in the ASA's consumer standards field, she is a member of the sectional committees on Specifications for Refrigerators, B38; Standards for Bedding and Upholstery, L12; and Performance Requirements for Protective Occupational Footwear, Z41.

Dr V. K. Wellington Koo—

The Chinese Ambassador to the United States started his diplomatic career in 1912, the year he received his Ph.D. from Columbia University. He has since been his country's delegate to

many important international conferences, and has represented China at most of the major capitals of the world.

In 1915 Dr Koo was appointed minister to the United States and Cuba, and in 1920 he was Chinese minister to Great Britain. From 1932 until he became ambassador to Great Britain in 1941, he was minister and ambassador to France. He came to Washington as Ambassador in July, 1946.

His international missions have taken him to the world's leading peace conferences. In 1919 he was Chinese plenipotentiary to the Paris Peace Conference and, as chief Chinese delegate to the League in 1920, sat as China's representative on the League Council. More recently he represented his country at the Dumbarton Oaks Conference in 1944, the San Francisco Conference in 1945, and last fall was China's chief delegate to the United Nations Assembly.

Between his diplomatic missions abroad, Dr Koo has served China as minister of foreign affairs, minister of finance, and prime minister.

Lieutenant General Ira C. Eaker—

Lieutenant General Ira C. Eaker, Deputy Commander, Army Air Forces, and Chief of the Air Staff, holds an enviable military record dating back to 1917.

He entered the army then as a second lieutenant in the infantry, winning his pilot's wings in October, 1918. After extensive service in the Philippine Islands and this country, he made a good-will trip around South America as pilot of one of the planes of the Pan-American Flight in 1927. He was chief pilot of the "Question Mark", the army plane which established a world's refueling record in 1929.

General Eaker was ordered to England in January, 1942, to organize the Eighth Bomber Command and to understudy the British system of bomber operations. On December 1, 1942, he assumed command of the Eighth Air Force. He was later appointed Commanding General of all United States Army Air Forces in the United Kingdom, and held this post until he became Air Commander-in-Chief of the Mediterranean Allied Air Forces in 1944. Under his command then were the Twelfth and Fifteenth Air Forces, and the British Desert and Balkan Air Forces. He holds many American and foreign military decorations.

On April 3, 1945, he was appointed Deputy Commander, Army Air Forces, and Chief of the Air Staff.

Our Front Cover

Left to right:—Howard Coonley, chairman of ASA Executive Committee; Lieutenant General Ira C. Eaker; Ambassador Dr V. K. Wellington Koo; Brigadier General Donald Armstrong, assistant to chairman of Executive Committee.

Industrial Standardization

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Part 2

American Standards—Price List

January, 1947 Ruth E. Mason, Editor 35 Cents

The American Standards Association is a federation of national groups dealing with standardization. Through it, government, industry, labor, and the consumer work together to develop mutually satisfactory national standards. It acts as the authoritative channel for international cooperation in standardization work.

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At the Annual Meeting

Upper right: Frederick R. Lack and George H. Taber, Jr, newly elected ASA president and vice president.

Upper left: Ephraim Freedman, member of the Policy Committee on Standards; Frederick R. Lack; L. F. Adams, vice chairman of the Standards Council.

Center: Howard Coonley, chairman of the Executive Committee; Carol Willis Moffett, ASA Board Member; Henry B. Bryans, retiring president.

Lower left: Ole Singstad and R. Oakley Kennedy, members of the ASA Board.

Lower right: P. G. Agnew, vice president and secretary of the ASA, with L. F. Adams.







The Twenty-Eighth Annual Meeting

Applies Standards to Some Of Today's Urgent Problems

INTERNATIONAL cooperation, methods by which standards can help to increase production, and suggestions for increasing sales by providing goods that have greater use value to consumers were the chief subjects discussed at the Twenty-eighth Annual Meeting of the American Standards Association, November 21 and 22. The first two-day annual meeting ever held by the Association brought together the largest attendance in the history of the ASA. In addition to a luncheon meeting on Thursday and the annual dinner meeting on Friday, it included meetings of the Standards Council, the Board of Directors, the Company Member Committee, and the Conference of Staff Executives of Member-Bodies.

General Eaker and Dr Wellington Koo are Principal Speakers

The climax of the meeting was a dinner on the Starlight Roof of the Waldorf-Astoria Hotel at which Lieutenant General Ira C. Eaker, Deputy Commander of the Army Air Forces, and Dr V. K. Wellington Koo, Chinese Ambassador to the United States, were the featured speakers. General Eaker urged that both industry and the Armed Forces build up greater strength and work together more closely as a means of preventing another war. He lauded American engineers and industry for their contribution to the war effort and stressed the importance of their work in the standardization of essential parts and equipment in the winning of the air war over Europe and Asia.

Dr Koo told of his country's plans for increased development of its industries. He urged greater cooperation between China's industries and those of the United States, and stressed the importance to American industry of greater prosperity in China which would help to open huge, largely untouched markets to American goods.

Election of Frederick R. Lack as president and George H. Taber, Jr as vice president of the American Standards Association was announced at the dinner meeting. Mr Lack is vice president and a director of the Western Electric Company in charge of its radio division. Mr Taber is executive vice president of the Sinclair Refining Company.

A luncheon meeting at the Waldorf-Astoria on Thursday, November 21, had Mrs Guy Moffett and Ephraim Freedman as the featured speakers, and heard annual reports of the president of the ASA and the chairman of the Standards Council. Mrs Moffett, who is well known for her work on consumer goods standards and is a member of the ASA Board of Directors, told the 450 members present at the luncheon how industry can build greater good will among buyers of consumer goods.

Mr Freedman, director of the Bureau of Standards of R. H. Macy and Company, and a member of the Policy Committee on Standards, reported on the work of the committee on behalf of Charles E. Wilson, president of the General Electric Company, and chairman of the committee. He announced that Mr Wilson and the other members of the committee have accepted re-appointment by Secretary of Commerce Averell Harriman.

Henry B. Bryans, retiring president of ASA, reported that membership in the ASA had increased during the past year with a corresponding increase in services to members.

Bring Wartime Work In Line with Peacetime Needs

The principal work of the Standards Council and its industry correlating committees has been in bringing the wartime work into line with peacetime needs, and in reviewing standards that have been in effect for some years to determine whether they should be revised or reaffirmed, L. F. Adams, vice chairman of the Council, reported. His report was given in the absence of Dr E. C. Crittenden, chairman of the Council. Dr Crittenden was in Europe to attend the meeting of the new International

Frederick R. Lack, President-Elect, American Standards Association

On the occasion of the twenty-eighth annual meeting of the American Standards Association, I wish to congratulate those who have taken the leadership in creating through the ASA an instrument for industrial self-regulation, economic prosperity, and the attainment of a better standard of living for the American people. As president-elect of the American Standards Association, you have my best wishes for the continued success of the association in bringing together all segments of government, industry, distributor and consumer interests in a common cause of understanding and cooperation. I envision the ASA federation of some 100 trade, technical, consumer, and governmental bodies as making an outstanding contribution to strengthening our national economy.

W. Averell Harriman
Secretary of Commerce

Organization for Standardization and of the International Association of Weights and Measures and was unable to return to the United States in time for the annual meeting.

One of the most important events of the meeting was the action taken by the Board of Directors in joining the new International Organization for Standardization. The Board voted to join the ISO at its meeting Friday afternoon, after hearing a report from P. G. Agnew, vice president and secretary of the Association, who had returned just two days earlier from the organization meeting of the ISO at London.

International standardization was also the subject of the day on Thursday when the Staff Executives of Member-Bodies heard papers describing how international agreement had already been reached on certain standardization problems. The papers included a history of the International Electrotechnical Commission, work on international standards for boilers, motion picture standardization, and work on screw threads.

Standards engineers of Company Members met on Friday afternoon, elected a new Administrative Committee and new officers, and discussed standardization problems of special interest to the companies themselves. Brigadier General Donald Armstrong, formerly Commandant of the Industrial College of the Armed Services, and now assistant to the chairman of the ASA Executive Committee, opened the meeting with a discussion of some of the problems that arise between government and industry when industry is called upon to meet the severe performance requirements of the Armed Forces. "This country has fought its last extravagant war; we do not have the raw material to do it again," General Armstrong told the committee. For this reason he urged closer collaboration between representatives of industry and of the Armed Forces in standardization committees. The history of World War I and World War II proved that there will not be time enough in the event of another attack by an aggressor to do the kind of emergency standardizing and specification work which went on frantically in the previous two struggles, he said. Members of the Company Member Committee discussed in some detail specific problems on which closer cooperation is needed between the Armed Forces and industry.

Abstracts of the principal addresses and high lights from the meeting are reported below.

Two Wars— The Last and The Next

By Lieutenant General Ira C. Eaker

Strength in peace urged as best means of preventing war; coordination of needs of Armed Forces and productive ability of industry seen as essential element



Official photo U. S. Air Forces

Lieutenant General Ira C. Eaker
Deputy Commander, Army Air Forces

WHEN a minister talks about sin, I do not think he is encouraging sin; and when a doctor discusses disease, I do not think he is encouraging disease. I believe it is important that we discuss the last war and the possible next war now because in my opinion our greatest safety lies in being strong. It is necessary that we military men talk about how to provide the necessary strength if we are to work together with you to prevent war.

I am particularly glad to have an opportunity to speak before the American Standards Association because of the importance of standardization in the successful conduct of the last war and because of the part that this organization plays in standardization. Standardization was one of the most effective of the means used by American industry in tooling itself up for the greatest production job ever required of industry. I saw the results of what American industry accomplished in England, in Italy, and finally in France and Germany. The weapons American industry produced were fine—better than the equipment of our opponents; and before the war was over American industry had attained an astonishing record of achievement. But we attained that record slowly; and we had serious production problems that

required vital time to solve. As you know, many of those problems had to do with the need for standardization and coordination, not only between elements of our own industry and the Armed Forces in our own country, but also between ourselves and our Allies.

Some of these standardization problems were evident even before we ourselves entered the war. It is said that 400,000 Belgians quit the war because they had no ammunition for their guns. The British had ammunition that could have been used, but British ammunition did not fit in Belgian guns.

My outfit was faced with the standardization problem when we tried to repair the few planes we had in England during the early part of the war, before our stock pile of spare parts was built up. Our planes were frequently held on the ground for lack of standard parts when we desperately needed them in the air. As one of my men reported, "We can't borrow parts from the British —we can't even steal them—they don't fit."

When I think of the fact that we started the last war with only 1,000 planes, I realize how important it was that the help of our Allies gave us two years to overcome the shortages which handicapped us at the beginning of this last war. I cannot emphasize too strongly the importance of not again falling into practices that might leave our productive facilities and our military forces badly uncoordinated. We cannot count on a two-year breathing period at the beginning of the next war if one should come.

Here is my list of lessons from the war, for whatever it is worth. If it is thought-provoking, I have accomplished my purpose in compiling it. One great reason for our victory lay in the fact that we had more and better manpower.

Other primary reasons for our victory were:

Because we had more industrial capacity, to produce more and better weapons of war.

Because we had time in which to gear these tremendous establishments to full scale stature and production.

Because we had space—two great oceans on either side of us, which served as protective barriers and prevented our manpower and our industrial capacity from receiving blows from the enemy while it was being mobilized.

Let us now see whether these factors will be sufficient to place us on the winning side should a war come again. Let me say, first, with all the emphasis at my command, that nobody hopes more fervently than we in the Army that the United Nations Organization may be so perfected as to prevent any further wars. But until that time comes, we must provide armies, navies, and air forces in sufficient force to insure that our country will be protected while we are developing the peace machinery.

Time and Space Factors Now Largely Eliminated

I suggest to you that the nature of warfare and its weapons has changed to such an extent that time and space factors have been materially reduced, in fact largely eliminated. If the Germans could in 1944, as they did, produce a rocket which could travel 70,000 feet above the earth for a distance of 280 miles at 700 miles per hour and deliver a ton of explosive, with considerable accuracy, it is absolutely certain that any of the principal industrial nations of the earth can, by 1950, develop a super rocket with a range of from 3,000 to 5,000 miles which can travel at a speed of 1,000 to 3,000 miles an hour sufficiently high to overcome the earth's curvature, and deliver ten to twenty tons of explosives with great accuracy. When that weapon is developed, you can well see that the time and space factors which have stood us in such good stead will largely disappear.

Much has been said in recent times about the effect of the atomic bomb on warfare in the future. We in the Army Air Forces have thought a great deal about it too, and we now have developed a Deputy Chief of Staff for Air whose sole mission is the study of the effect of atomic energy and weapons on warfare and the development of new weapons through the most advanced experimentation and research. We acknowledge the shattering and cataclysmic implications introduced by atomic fission, and we have marshalled our best brains and our whole scientific and experimental organization to think through every possible implication and mold our Air establishment accordingly.

In my studies of this problem, I have asked this question: If I had been the head of the Japanese General Staff, how could I have prevented the atomic bombs from being delivered on Japanese targets? This is my conclusion: There are three ways in which this might have been done had the Japanese possessed the necessary military force. The first would have been to destroy the production capacity of atomic bombs at its source in the factories and laboratories of the United States. This would have been the most decisive and effective way. The second method would have been to destroy the bombs, and the planes which were to deliver them, on their bases in the Marshall Islands, before they were launched. The third possible but doubtful method would have been to have had a fighter defense and an anti-aircraft defense of sufficient efficiency and intensity all over Japan to have destroyed the planes carrying the bombs as they approached their target. This would have required a larger fighter force and a better anti-aircraft defense than any nation in the world has even approached to date. It would have been the most inefficient of the three methods and least likely to succeed.

Now, what sort of force would Japan have needed to accomplish the first two of these methods? The only weapon known to warfare today which could have accomplished these purposes—the destruction of bomb-making capacity in the United States or of the planes carrying the bombs —the long-range bombers on bases in the Marshall Islands—would have been a long-range bomber force such as we alone of all the nations of the earth had in this war. The most powerful army in the world and the most powerful navy afloat would have been impotent to stop these bombers with their death-dealing atomic bombs. Only a long-range bomber force of sufficient power to fight its way through to its targets could have saved Japan from the bombs.

Methods of Last War No Longer Apply

We must revamp our war plans; we must reorganize our military power for a new type of war. If all of us will fully realize these facts and prepare our military machine for the future in accordance with them, our country will still be secure. If we do not, if we insist upon building a military machine with which to win the last war, then we shall have no real security and the tremendous cost will have been an idle expenditure.

(*Continued on page* 25)

The Industrial Future of China

By Dr V. K. Wellington Koo



Harris & Ewing

Dr V. K. Wellington Koo
Chinese Ambassador to the United States

Program of industrialization will require imports of machinery; opening of China's markets seen as epic story of development similar to that of America's West

AN impetus for industrial growth in China was furnished by the first World War when the scarcity of shipping facilities resulted in an almost complete paralysis of the import trade from Europe. Chinese industries had to manufacture goods not only for the domestic market but also for export to certain areas of southeastern Asia. The result was that while there were not more than 600 factories using mechanical power in China in 1913, the number was nearly 2,000 by 1921. This trend of steady industrial expansion, however, encountered a great obstacle in the form of Japanese economic penetration and political encroachment. Certain industries were subjected to severe Japanese competition, notably textile manufacturers.

Only with the recovery of her tariff autonomy in 1928 was China able to provide some degree of protection for her infant industries. Although Japanese occupation of Manchuria in 1931 deprived China of much of her mining industry, the Chinese met the challenge courageously by launching an ambitious program of economic reconstruction and industrial development in China proper.

The upward trend of Chinese industrial expansion can be gaged from the development of the cotton textile industry which was the principal light industry of China. In the decade ending 1933 the number of spindles in Chinese-owned mills increased by more than three times (from 888,000 to 2,885,786). Her cloth production nearly doubled (from 577 million square yards in 1930 to 991 million in 1935). The flour mills also enjoyed considerable boom, having, in the several years preceding 1937, an annual output of from 60 to 90 million bags of wheat flour. An encouraging beginning was also made in the chemical industry. In iron and steel manufacture there was an increase of 625 machine shops and foundries in the years before the outbreak of the war. Although most of these were small and inadequately equipped, a fair number were able to produce a great variety of simple machinery such as generating motors, pumps, boilers, and machinery for textile, flour, vegetable oil, and tobacco industries.

Rapid Industrial Progress Important Factor in Japan's Invasion

Historians have observed that this rapid industrial progress was jealously looked upon by the Japanese and constituted an important factor for her campaign in Japan's decision to invade China with a view first to the amputation of her northern provinces, and later to the conquest of China herself.

The war which China fought so gallantly has resulted in appalling industrial losses. In Shanghai alone the estimates of such losses range from CNC$3500 million to CNC$4400 million in their pre-war value. In the eastern section of this great metropolis of the East, some 900 factories and workshops normally employing over 30,000 workers were completely destroyed and over 5000 industrial establishments of varying sizes either damaged or demolished.

Move 100,000 Tons of Machinery to Continue Production

These tremendous sacrifices did not, however, dampen the spirit of resistance but prompted the Chinese people instead to create a new industrial base in the vast hinterland of China. By the end of 1940 more than 100 thousand tons of machinery and other equipment had been removed from the coastal areas to the interior, not only to provide for the production of war materials, but also to lay a foundation for the development of the inland regions. In the war years there was achieved considerable development in a number of industries, including spinning and weaving, metal industries, food production, chemicals and electrical industries. All of this I believe Mr Coonley saw in our country.

With the defeat of the enemy and the recovery of her lost territories, China is now on the threshold of another period of industrial development. The pattern of industrialization has long been laid by Dr Sun Yat-sen, the Father of the Chinese Revolution, in his "International Development of China". His program included such principal items as the building of 100,000 miles of railways and one million miles of macadam roads; the development of three principal commercial harbors in north, central, and south China;

the establishment of large cement works; the building of shipyards expected to have a yearly output of at least two million tons of vessels; and the mining of iron, coal, copper, and other minerals in sufficient quantities to meet the growing needs of Chinese industry.

The Chinese Government has recently established a Supreme Economic Council to give direction on all phases of economic development.

As regards the future industrial system of China, I think it is proper that I point out three new features:

1. *Simultaneous development of both heavy and light industries*—Prior to the war the main emphasis was focused on light industries, such as textile factories, and flour and oil mills, purely for the manufacture of consumption goods. Comparatively little capital was invested in iron and steel, machine tool, or chemical industries which produce capital goods.

But the recent war has taught the Chinese people a bitter lesson by demonstrating that without some heavy industries China could neither assure her national safety nor contribute to the maintenance of international peace and security. There must be a more balanced development between heavy and light industries. While the industries for the production of consumption goods cannot be entirely neglected, especially in these years immediately following the war when such goods have become so scarce in nearly all parts of the world, greater emphasis must be placed on the development of such key industries as the electrical power, metallurgical, machine tool, and chemical industries.

2. *Regional development*—Before the war, Chinese industries were confined to a few big cities along the coast and the Yangtze River. In Shanghai alone 42 percent of her 2,000-odd factories were located. With the concentration of industries in a few cities, one part of the country was modern while another part backward; a part of the population enjoyed a comparatively high standard of living while people in other sections suffered dire poverty.

There must be, therefore, a more rational plan for future development, a geographically better distributed pattern of industrial production. It has been suggested that the vast extent of the country should be divided into seven principal regions, such as the Northeastern Region, including all of Manchuria; the North China Region with Tientsin, Peking, Tsingtao, etc as the key places; the Northwest Region with Sian, Lanchow, Tihwa, etc as the centers; the East China Region with Shanghai, Nanking, etc as its chief basis; the Central China Region pivoting around Hankow and Wuchang; the South China Region with Canton, Kweiling, etc as its centers; and the Southwest Region basing itself upon Kunming, Chengtu, and Sichang. In each region, careful investigations should be conducted to ascertain its human and natural resources so that industrial enterprises might be developed at points closest to the sources of raw material.

3. *An industrial system based upon free enterprise but blended with government ownership in some industries*—For the economists, there may be a perpetual debate over the merits of free enterprise versus state control. For the Chinese Government, however, the settled policy is in favor of a system of free enterprise with state-controlled undertakings limited to certain categories, such as, for example, enterprises relating to national defense and enterprises requiring large-scale equipment which private interests are not in a position to undertake.

Increase in Purchasing Power Is Objective

The ultimate objective of industrialization is, of course, to raise the standard of living of the people and to increase their purchasing power. In China today articles which are found in almost every American home, such as the automobile, the telephone, the radio, the vacuum cleaner, the refrigerator, and others, are considered as great luxuries. With an increase of their purchasing power, the teeming millions of China will become customers for these luxury goods and constitute an enormous market to absorb the output of American industry.

No program of industrialization in China can succeed, however, without large imports of capital goods such as steel rails, locomotives, bridges, ships, and mechanical equipment of all sorts. Almost every important industry in the country will find itself in need of machinery from foreign countries and it is certain that the United States is in the best position to supply them.

The expansion of modern industries in China offers immense opportunities not only for the importation of capital goods and technological skill from abroad but also for direct foreign investments. The opening of the Chinese hinterland will be in a large measure similar to the epic story of the development of the West in the history of the United States.

It may be said that the orderly realization of a program of industrial development requires settled conditions as a prerequisite. Opportunity for economic and industrial cooperation must be accompanied by stability before it will become attractive enough to be quickly seized by foreign capital. Thoughtful observers all agree that China, with all her apparent difficulties, is really striving to solve her problem of national unification.

National Unification Essential to Industrial Development

The convocation of the National Assembly in Nanking this week for the adoption of a constitution, though the opposition parties have not yet attended, is indicative of the earnest and firm desire of the Government to bring about, as quickly as possible, the establishment of a constitutional democracy based upon the principle of representative government. Only when this indispensable condition of national unification is assured can the plan of industrial development and other long-range policies of reform and reconstruction be pushed forward to a successful conclusion.

China's need of foreign capital for industrial development goes without saying. On more than one occasion, the Chinese Government has declared that foreign investment will be welcomed, whether it is in the form of loans, joint enterprises, extension of credits, or special investments. We are of course aware that, in order to bring about economic cooperation between any two countries, it is not enough for one side merely to express the desire to borrow. It is only natural for the other side to wish to determine the terms upon which it will lend.

For this reason, we were not surprised by a recent public pronouncement as to the factors which the American authorities will take into consideration in determining whether or not to grant a government loan or to authorize a private loan to a for-

(*Continued on page* 22)

What the Consumer Wants in STANDARDIZATION

By Carol Willis Moffett



Harris & Ewing

Carol Willis Moffett

American Association of University Women, American Home Economics Association

THE honor of being the voice of consumers here today probably comes to me because primarily I am a homemaker. And homemakers, as you know, no longer toil from sun to sun spinning, weaving, sewing, preserving food, and adding in such ways to the family's total income. Instead, their concern now from dawn to dark, with a little added worrying when the lights are out, is how to buy within the limits of the family income the standard of living the family wants.

Two-Thirds of $182 Billion Production for Consumer Use

About two-thirds of the gross national product worth $182 billion this year, according to Department of Commerce estimates, will be for consumer expenditures, as it was before the war. A large part of this $120 billion which consumers are spending will be handed over the counters by women. They are the chief purchasing agents for the 40 million homes of the nation. From this fact stems their interest in standards for consumer goods. They think of them as definitions of what goods and services are, and what they will do for them. Without such definitions, they have the uncomfortable status of gamblers with the family's resources.

The kind of standardization we want as ultimate consumers is that which answers the questions in our minds when we shop. We can discuss standards for consumer goods by considering what these questions are and how we would like to have them answered.

Let us begin with the most obvious question, how much are we getting at a given price?

This is answered by our standards for weights and measures. They have an ancient history, but they illustrate the dynamic quality of all standards because scientists continue to refine their methods of measurement. Yet, despite the long use and common acceptance of the principles embodied in these standards, we do do not let them serve us well. Many products are priced by the package or can. Net contents must be printed on containers, but few of us care to take the time when we shop to reduce that price to so much an ounce, and multiply it by the stated number of ounces to determine which may be the best buy. We need further work on standards for containers to reduce the number of sizes, with a view to relieving confusion and preventing deception.

Another question we want answered is, how safe is it?

The things we buy obviously should not be bad for our health or endanger our lives, and the conditions under which we use them should be made as safe as possible. We have good protection now through standards and informative labels in the field of food and drugs, and to some extent in our equipment. The American Standards Association has made great progress in the development of industrial safety standards. But more fatal accidents occur in our homes than anywhere. They account for about 35 percent of all fatal accidents today.

No Voluntary Standards May Bring Political Action

This area for safety standards no longer should be neglected. It is almost a truism that when voluntary standardization is postponed too long after the need for it arises, it becomes a political question. Such a situation has arisen concerning the flammability of fabrics. When little boys were burned to death because the imitation sheepskin, made of highly napped rayon, on their cowboy suits ignited as they stood before a bonfire, Congressmen burst into that familiar chant, "there ought to be a law." Slippery bathtubs without handgrips, unsafe household ladderstools, highly flammable blanket materials, slippery floor finishes, all add to the yearly toll of fatal accidents. We need not risk our lives so foolishly if we are willing to develop safety standards for homes and consumer goods.

A third big question for us all is, what is the size and fit?

We know that mass production and distribution are completely dependent upon standards for size and fit. We have almost forgotten the time when we had to shop around to find an automobile tire which would fit the rim of our particular car. We do not have to waste energy looking for a light bulb or plug to fit our appliances. But when it comes to the much more important consumer need—that for clothing—we

have made little progress. The habits which originated when all clothes were made by hand to fit a particular individual have persisted into our mass production era.

Take shoes, for example. The creation of the original model lasts over which shoes are sized still is an art undefiled by much science. Lasts are altered with changing fashions. Our feet, however, exhibit no corresponding vagaries. The size standards now in use are honored more by the breach than the observance, probably because there is a restless searching for better fit. With newly developed methods now available, the contour and linear dimensions of feet of an adequate sample of the population could be measured. Then standards for size and fit could be developed which would be much more satisfactory to the industry as well as to consumers.

We know such standards are possible. The United States Bureau of Human Nutrition and Home Economics has demonstrated how to find out what body dimensions are, and classify them according to the frequency with which they occur. In 1937, it measured 147,000 children. The results of this study revealed that age, the prevalent method of size designation, is the poorest indicator of a child's size; height and girth of hip, the best basis for standards of size and fit.

The idea was so revolutionary that no agreement for new standards on this basis was reached when they were considered by a committee of the American Standards Association. Instead, a trade standard was developed which is somewhat less than the best that could have been adopted, but an improvement upon the unsatisfactory age classification. It is slowly getting into use.

Alterations in Clothing Cost Huge Sums

But similar chaos persists in sizing women's clothing, and to a lesser extent in men's. It is costing both retailers and consumers huge sums every year for alterations. When the Bureau measured a small sample of 15,000 women in 1938, it discovered many reasons why their ready-made garments did not fit them. Yet women today often must pay from a fourth to a third more than the cost of a garment for alterations before it can be worn. This useless waste of money could easily be stopped if we were willing to do a little more research on body measurements, and revise our practices in sizing and fitting. Such standards also would increase the market for manufacturers and make distribution less costly.

The fourth question we want to have answered is, what does the name or descriptive adjective mean?

Many new and unfamiliar materials are being made today, and more are promised for tomorrow. Our ability to create new products and finishes has outrun our capacity to identify them in a retail store. Some progress has been made by rulings of the Food and Drug Administration and the Federal Trade Commission. Federal legislation finally produced the Wool Products Labeling Act, defining new, reused, and reworked wool. Fiber content must be stated on textile labels. Such words as "washable" and "preshrunk" have been given a definite meaning.

Dictionary for Retail Terms Now Being Started

Much remains to be done, however. Sterling silver, for example, is identifiable by mark, but the thickness of silver on plated ware varies so much that articles called "silver-plated" may be either a good or a very poor investment. Practically anything may be called broadcloth. The British were many years ahead of us in this field when they published a dictionary of standard retail terminology, called *The Intelligent Woman's Guide to Shopping*. Now a new committee of the American Standards Association is beginning to tackle the definitions of terms used in retailing which have long been needed in this country. So this fourth question is on the way toward being answered.

We come now to the question which generates as much emotion in the supposedly cold, scientific realm of standards as a beautiful blonde and a handsome aviator can generate in a romantic short story—what is the article's relative worth?

Many factors are involved in the standards which help us compare similar articles designed for the same need, in order to decide which is the best choice for our individual circumstances. Standards defining relative worth are the basis of every effort to grade products and rate them according to their over-all quality, to state as accurately as possible their performance in use, durability, cost of operation and upkeep, suitability for different uses. Because we have so few standards of this kind today, testing and rating services such as Consumers' Union



"I suggest you take a six, which will shrink to a four when you wash it—and that will just fit him if he's two."

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and Consumers' Research flourish.

There used to be a notion that the demand for standards defining relative worth was a deliberate attempt by a few consumers to undermine the prestige of brand names. This misconception still lingers among the less flexible minds which find it hard to change old habits. The fact that the most successful radio commercials are those poking fun at the old types of advertising should help to dispel this attitude.

We all want brand names to mean something definable. Textile concerns experimenting with specification labels which revealed quality differences found them an asset to their brand names. A mail order company reports large savings to itself since it began to define in the catalogs the differences between good, better, and best merchandise.

When a woman buys a long-coveted washing machine for home laundry, she is looking primarily for a piece of equipment that will get clothes and household linens clean. She also wants it to be durable, because it is an investment she cannot repeat often. She wants it to be well engineered and tested before it is placed on the market. She wants it to wear evenly, not rust in spots or require one parts replacement after another. She wants safety devices on wringers, and smooth edges that will not catch or tear fabrics. And above all, she wants to compare these and other factors in the different machines on the market, so she can decide which may be the most satisfactory for her needs at the price she can afford.

Home Economics Group Discusses Consumer Needs

Obviously, the question of relative worth is complicated, and not many homemakers have given the detailed consideration to what they want that would help standardizers or manufacturers. The American Home Economics Association has found a way, however, to enable homemakers to discuss and reach agreement on their needs and preferences. This Association organized a discussion group program called "The Consumer Speaks" over a year ago.

The first results of this program were published in the November *Journal* of the Association. The report, and news stories about it, have brought a flood of requests for reprints from manufacturers, retailers, and advertising agencies.

More women chose to discuss house dresses than any other article. In 22 states, 11,577 members of groups affiliated with the largest and most prominent women's organizations of the country voted on what they wanted. They pointed the way to standards of relative worth by defining the characteristics they expected in low, medium, and high priced ranges. They even indicated the relation of price to income when a group of farm women voted that they expect to pay no more for a good house dress than 10 dozen eggs brought them.

Color Fastness Voted Most Important Factor

I commend this report to you for the insight it affords into what consumers want in standardization, even for a product where fashion is a consideration. For example, color fastness ranked above all other characteristics in the number of votes. Next was shrinkage control, and then weaves that are durable and will not stretch or ravel. Women are interested in the quality of thread, the kind of buttons, and the way they are attached, in belts, buckles, and workmanship. All the factors that go into making a house dress functionally satisfactory under conditions of use were covered. If women could find a brand name in house dresses which stood for these definable factors, which frankly stated these quality factors in relation to prices for the good, the better, and the best, that brand name soon would be worth a lot to its owners.

A sixth question is in buyers' minds now because of our experiences during recent years. We want to know, is this article worth anything at all?

Minimum standards that would place a floor under quality never seemed so important before. The general feeling has been that they were unnecessary if standards defining relative worth could be developed. But the profligate destruction of our resources in war has put the individual's financial losses from worthless goods in a new perspective. We all know now that even this fabulously rich country cannot afford to waste materials and manpower on products that are worse than useless.

Want Something Done About Worthless Merchandise

At a recent meeting in Washington of Extension Service leaders from all over the nation, the question came up again and again, "Can't something be done about the worthless cooking utensils now on the market?" They told of pans so thin that food burned in them quickly and the bottoms melted away. They pointed to the hazards from handles that bent or broke off when pans of hot food were lifted from the range. They found that water would have to be piled high in the pan to make it hold as much as the measurement claimed for it. Examples of such worthless goods are familiar to us all. Why make a woman's blouse that the retailer tells customers is not guaranteed either to wash or dry clean? Why make slips of nylon that can be worn only once because all the seams pull out? Why put children's shoes on the market with soles that come loose and thread that breaks in the seams with the first week's wearing? If minimum standards are necessary to prevent such goods from being offered for sale, we should develop them for the sake of our country's resources, as well as our own.

Standards Must Be Understood By All

Even so brief a survey as this reveals the tremendous job to be done on standards for consumer goods, if we all are to realize the buying power of our incomes. Estimates indicate that we could buy 25 percent more with our money, if individual consumers had the facilities for rational choices now available to business purchasing agents. But the best standards for consumer goods will not accomplish this desired end unless they are stated in terms understandable to a literate person, and carried through from producer to retailer to consumer in advertising, and in informative labels attached to the products wherever possible.

The American Standards for coal are an example. Since they were issued in 1937, they have been used in the wholesale trade and by large-quantity buyers. They are a good illustration of standards that take into account performance and suitability for different uses. But the standards are printed in technical terms; few buyers for the 40 million homes of the nation can interpret or apply them. The information about coal characteristics as they are defined in the standard do not come through from the mine to the house-

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Standards and Free Enterprise



Ephraim Freedman

Director, Macy's Bureau of Standards; member of Policy Committee on Standards

By Ephraim Freedman

Reporting for Charles E. Wilson, Mr Freedman announced re-appointment of Policy Committee on Standards by Secretary of Commerce Harriman

SHALL free enterprise be allowed to continue?

This is truly a challenge which calls not only for sober thought on the part of every civic-minded individual, but also, and most emphatically, it calls for clear-minded thinking in high places—particularly in industry.

The reason that industry is singled out is this:—Industry through free enterprise has proven its ability to provide the people of this nation with a standard of living unequalled anywhere else on earth.

However, though Industry has contributed so much to the physical well-being of this nation, it has failed in two respects:

(1) Industry has neglected to keep the public informed as to these worthy contributions; and

(2) Industry has not kept pace with public demands for the more rapid and more widespread development of standards in the consumer goods fields, particularly those involving clothing and home furnishings.

The Policy Committee on Standards has held meetings with representatives of Industry, Labor, and Consumers. Through its chairman, Mr Wilson, and its executive secretary, Mr H. G. Knoderer, it has maintained contact with the Department of Commerce and with the American Standards Association.

Regarding the former, I am pleased to announce on behalf of Mr Wilson the receipt of a communication dated October 24, 1946 from the Secretary of Commerce, the Honorable W. Averell Harriman, in which the Secretary asked the Policy Committee on Standards to continue as an advisory group to the Department of Commerce—and Mr Wilson's reply of November 11, 1946 in which he accepts the appointment on behalf of all members of the committee.

The Policy Committee has been in existence for nearly two years and its work is barely begun. Its efforts have met with considerable success in some quarters, but there is still a long, hard road ahead of us. To be truly successful, the Policy Committee must have the full support of industry.

Products Can Be Good Will Messengers

Imagine, if you will, some four hundred thousand items, each one of which is made by industry for ultimate consumer use.

Each of these articles can be a messenger of good-will or of ill-will, depending upon whether it represents value in terms of quality, performance, and durability.

Each of these articles should be a bid for the public's support of free enterprise.

That these articles do not always warrant that support is discovered over the retail counter by the doughboy of industry—the retailer.

Where standards are in existence, a means for communicating pertinent information regarding commodities becomes available or should be made available to consumers.

Consumers receiving such information can buy more intelligently, consume more wisely, increase the buying power of their spending dollar.

All of which adds up to an increase in the economic well-being of the American public and an increase in good-will to free enterprise.

The American public has a way of making itself heard—with telling effect. They did recently. Why not utilize that power to make friends for free enterprise through your products and through the way you market them.

Standards for your products, created by voluntary effort on your part, will go a long way to preserve free enterprise.

The Policy Committee on Standards

Members of the Policy Committee on Standards which has been asked by Secretary of Commerce Averell Harriman to continue in existence:

Charles E. Wilson, President, General Electric Company, *Chairman*

Dr Frederick M. Feiker, Dean of Engineering, George Washington University

Clarence Francis, Chairman of the Board, General Foods Company

Ephraim Freedman, R. H. Macy & Co, Inc

Dr Frank B. Jewett, President, National Academy of Science

William B. Warren (now deceased), President, McCall Corporation

Arthur D. Whiteside, President, Dun & Bradstreet, Inc

R. E. Zimmerman, Vice President, U. S. Steel Corporation

Greater Support Means More Service,

Bryans and Coonley Report

"THE broad and growing cross section of American industrial, governmental, and consumer groups, which now comprise the ASA federation, is ample proof that standardization is not just a means whereby industry can make more profits—though it certainly contributes to it very decidedly—but is also one of the important aids to the economic and social progress of our country," Henry B. Bryans, retiring president of the American Standards Association, told those present at the annual meeting in his welcoming address. Mr Bryans said that increased service to ASA members is being made possible by the success of the work being done by Howard Coonley, chairman of the ASA Executive Committee, and by Brigadier General Donald Armstrong, assistant to the Executive Committee chairman, in enlarging ASA membership and financial support.

Growing Recognition of Vital Role Of Standards in National Economy

"The brilliant success Mr Coonley has achieved in this field, with the help of his associate, General Donald Armstrong, has been one of the finest chapters of the Association's history," he said. "It was possible only because of the rapidly growing recognition by all the interests concerned of the vital part standards are playing in the national economy."

One of the important services in connection with the work of the American Standards Association now being further developed as a result of the enlarged membership and financial support is the increased service furnished by the ASA staff as secretaries of sectional committees, Mr Bryans said. This has been made possible because of recent additions to the staff, he explained. Through this service staff members are "increasingly relieving sponsors and officers of duties which may have been performed in the past only at the expense of their own work," he declared.

"The result is that industry as a whole is sharing in the cost of such services and the program is being speeded up through the use of a special staff not hampered by extraneous duties. As our funds increase, such facilities will be increased. The members will recall that this procedure was recommended by the planning committee of the Standards Council as a result of its studies on ways and means of speeding up ASA operations.

"The increase in staff facilities also has made it possible for headquarters to give better service direct to members," Mr Bryans declared. "For instance, the library facilities have been enlarged and improved. This library, containing more than 20,000 standards, domestic and foreign, plus other technical information relating to standardization, is available for use by all ASA members. As new material is received, it will be analyzed and reports concerning it will be forwarded to interested members. Similarly, this information will be supplied to sectional committees so that they will have information concerning the work of other organizations. Members in all categories ought to make full use of this unique tool, one of the finest standards libraries in the world."

Rapid strides have been made during the past year in carrying out the object of the ASA listed in the constitution as "promotion of the knowledge and use of American Standards and promotion of standardization as a means of advancing the national economy," Mr Bryans declared. "Mr Coonley and General Armstrong have traveled the country, literally from coast to coast, discussing and explaining the meaning and usefulness of national standardization with industrial, business, and financial executives, with the heads of retail and other groups, and with consumer groups. Never before has the story of the fundamental importance of standards been put before so wide and important an audience."

Mr Coonley himself reported on the work he and General Armstrong have been doing by announcing that nearly a quarter million dollors has been brought in over and above the normal income of the ASA. Just as important is the fact that new groups are finding that standards have an important role in our economic development, he said. "To me this [the additional money] is conclusive evidence that industry realizes the importance of its stake in standardization," he said. "It also supports a conviction I have had all my life that when business has an opportunity to contribute to the well-being of the nation, when it can make a better product at a lower cost, when

Standards Council Members Confer



Left to right: C. B. LePage, Assistant Secretary, American Society of Mechanical Engineers; W. R. Smith, Safety Engineer, Electric Department, Public Service Electric and Gas Company; Colonel H. B. Hambleton, Office of the Chief of Ordnance, U. S. War Department; F. M. Farmer, Vice President, Electrical Testing Laboratories, Inc.

it sees the opportunity to exercise its responsibilities in a free economic society—that opportunity will not go by default. In the interest of standards as a tool of management, as an efficiency factor in production, and as a protection to consumers, the ASA is prepared to render specialized service for advancing this great movement on its broadened front and to help guide its progress as an important influence in national and international affairs."

Mr Coonley explained that some 20 new areas in our economy have been brought into the ASA sphere of interest in the past 10 months. "In the industrial groups," he said, "I can name the aircraft manufacturers, aluminum producers, the boiler companies, chemicals, foundries, instrument makers, new sections of the nonferrous metals industry, office equipment, air conditioning, and others.

"Fully as important as enlisting financial support from new groups is bringing to them an appreciation of the leading role standards have played in our economic development," he declared. "Time and time again I find a complete misconception of what standardization is. There are still many executives who think of it as a form of regimentation, a curtailment of individuality in product design. When they realize this is not true, then arguments against standards disappear and more often than not they themselves prove their justification. There is not an executive in the country today who is not seeking to cut costs in the face of rising levels of prices and wages, and standards is one answer to that problem which is gaining increasing recognition.

"We have already seen this recognition of our educational efforts reflected in proposals for new projects, requests for increased activity of those in progress, and in a broadened interest in the workings of the ASA machinery."

Wartime Technical Work Being Salvaged for Peacetime Use

By L. F. Adams

L. F. Adams, vice chairman of the Standards Council, reported on its work during the past year on behalf of Dr E. C. Crittenden, associate director, National Bureau of Standards, chairman. Dr Crittenden was in Europe where he attended meetings of the International Organization for Standardization and the International Bureau of Weights and Measures.

THE past year has been one in which conversion from war to peace uses has been the primary concern of American industry and technology. The American Standards Association also has risen to the challenging problem and devoted a great part of its energy to it.

During the war a very large proportion of the active projects of this federation either ceased altogether or continued work only on those matters which were of significance in our terrible national emergency.

Having triumphed over these perils, our problems became twofold: to reactivate the work which we so long had carried on for the national good and to salvage insofar as possible the enormous amount of technical work which had been poured into war-emergency projects.

Specifically, committees had to be reorganized, new officers appointed, and in some cases sponsorship of projects had to be re-examined.

This process argued no relaxation, but on the contrary an intensification, of the work of ASA during the war. While the struggle went on, the ASA machinery provided the country with 153 standards adapted under its emergency war standards procedure. This is a record of which all of the hundreds of participants in the ASA program and the organization as a whole now have every reason to be proud.

There remained, however, at the war's end, the question as to how much of the technical work done on these projects could be put to peacetime use. The ASA procedure under which the emergency war standards were developed provided that, following the cessation of hostilities, all of these standards should be reviewed by ASA correlating committees for the purpose of determining the need for revision, discontinuance, or reapproval of American Standards for peacetime use.

To date, this reviewing procedure has resulted in reaffirmation of 15 standards leaving 138 still to be disposed of. Ninety-six of the remaining wartime standards already are under review by committees, but have not yet reached the approval stage. Others will be placed under review as rapidly as possible. Since this work was done during the period when a general reconstitution of ASA work was still under way, the record appears good. There is every reason to think that a considerable additional portion of the work done during the war can with some revision be converted to peacetime usefulness.

Meantime, the regular work of developing standards not connected with the war has gone forward in a satisfactory manner.

New regular standards approved in the past year number 31, and revised regular standards approved number 13, making a total of 44. In the year up to our previous annual meeting, 22 new regular standards

were approved and 21 revised regular standards were adopted. Thus while the total of all standards in the past year numbers 53 against 87 in the previous year, the difference is more than accounted for by the fact that only 9 war standards fall into the current accounting compared with 44 in the preceding year.

Having given you this statistical record of the past year's technical work of the ASA, I would like to call your special attention to two projects which have been completed in the past year in the peacetime field.

It is doubtful if any standard approved by ASA is as far reaching in its application and affects the living. of so many people as the National Electrical Code. This code was developed under the leadership of the National Fire Protection Association by its electrical code committee, which is an ASA-approved sectional committee.

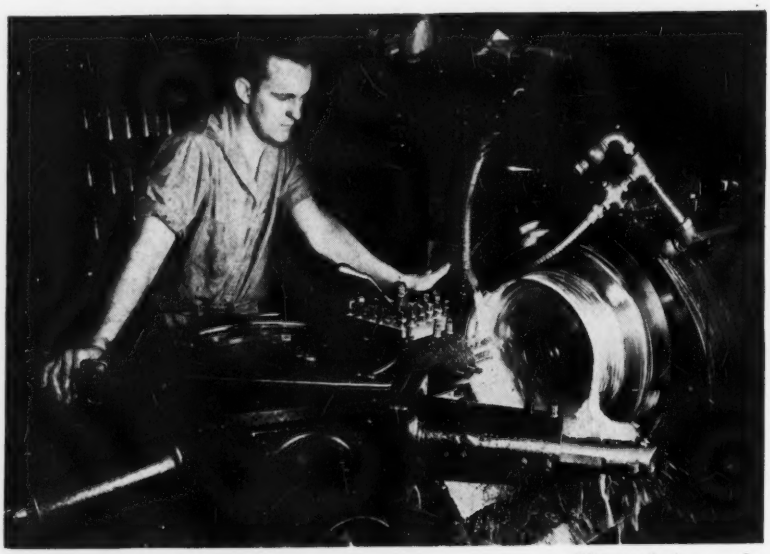
The National Electrical Code governs the installation of electrical wiring, switches, outlets, and other devices in practically all industrial and business buildings and homes in the United States using electricity as a source of power, heat, or light.

The last prewar edition of this code was approved in 1940. Many emergency requirements were established during the war, but the new edition approved a few weeks ago brings to the electrical industry, governmental agencies, insurance groups, and the general public up-to-date requirements designed to insure that electricity can be used with a minimum exposure to possible hazards of fire and bodily injury.

Not only is it fitting to compliment the National Fire Protection Association for its leadership in bringing a new edition of this very vital standard to the country so soon after hostilities, but it is especially fitting that special mention should be made of the outstanding service of Alvah Small, president of Underwriters' Laboratories, who over a period of 22 years has, as chairman, guided the electrical code committee over many a rough path and through many a controversial issue. Only a person of such outstanding technical knowledge, and qualities of leadership as are possessed by Mr Small could have guided this work.

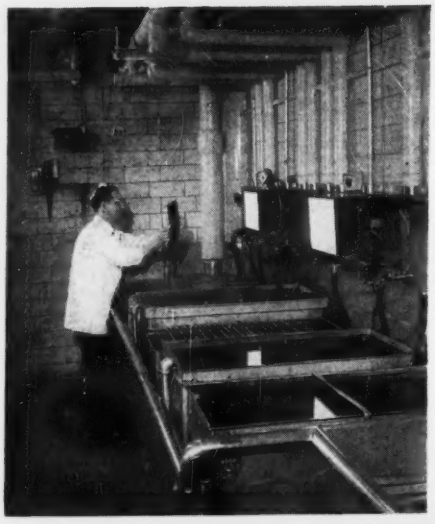
One of the matters of outstanding concern to the country today is that of planning to meet the great need

Standards fo



Warner & Swasey Co

One of the single-point cutting tools covered in the new American Standard outlining tests for tool life.



Kodak Research Labs

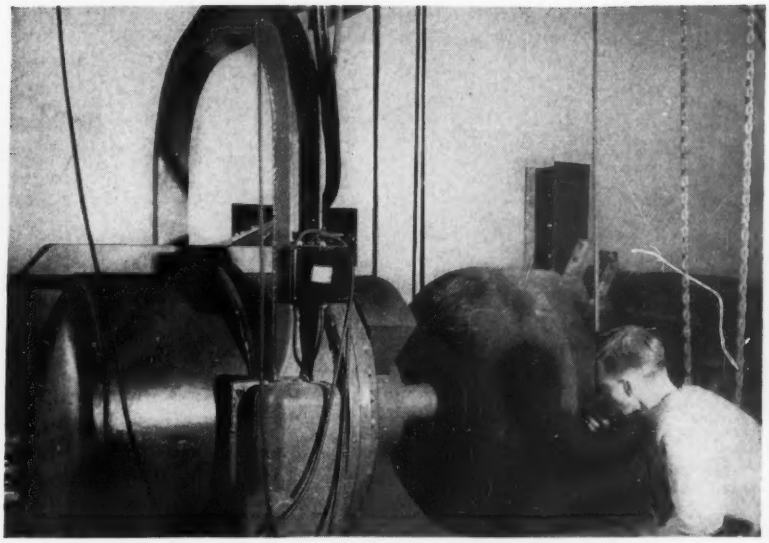
A commercial film-processing laboratory. A broad program on photography has already brought approval of 84 standards.

A magnesium alloy casting being degreased before painting. A recent safety standard defines allowable concentration of trichloroethylene in air.

The Dow Chemical Co



ds for Industry



General Electric X-Ray Corp

Taking an x-ray picture of a circumferential weld. The American Standard x-ray code tells how to protect workers.

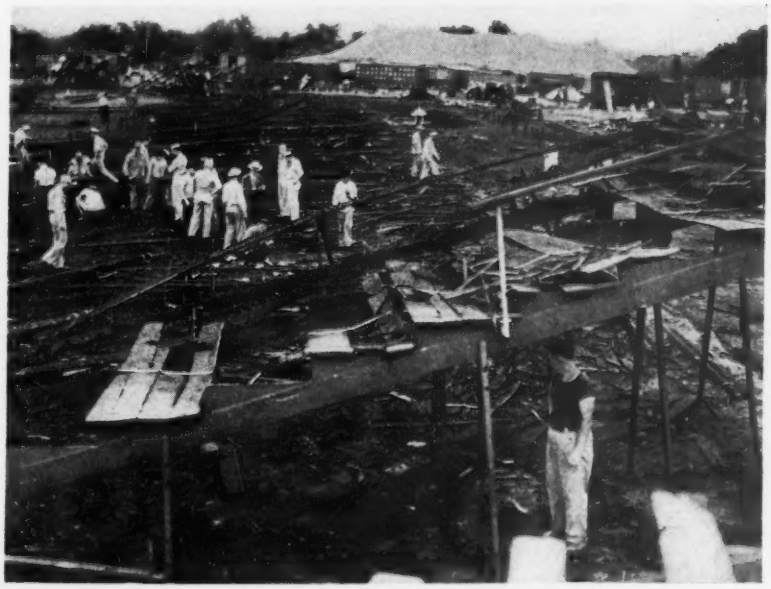


Charles Phelps Cushing

Adequate natural light and ventilation in new buildings is provided for in a recent American Standard Building Code.

Safety requirements for grandstands and tents were given in one of the important new standards completed last year.

International News Photo



for building construction. This need, coupled with rising costs, makes it desirable that use be made of every possible tool designed to facilitate speed and economy.

The new American Standard for Modular Sizes of Masonry Units, recently approved, with the two standards approved late in 1945—Basis for the Coordination of Dimensions of Building Materials and Equipment, and Basis for Coordination of Masonry—provide the building industry and architect with some of the tools. The project under which these standards have been developed is a continuing one and the year 1947 will undoubtedly show more evidences in the form of new standard modular sizes of building materials and equipment.

In this connection I should mention the publication during the year of the A62 Guide for Modular Coordination, published by the Modular Service Association. This study embodies the work of ASA committee A62 on modular standards and becomes in effect the framework in which a much larger number of ASA modular standards will eventually be fitted.

Accident prevention is another matter of great importance to the economic and social progress of the country. It will continue to be of interest so long as in one classification alone—industry—17,500 workers are killed each year, 1,800,000 are injured, and there is an over-all yearly economic loss of $2,350,000,000.

Surely if standardization can help in such a field as this, it should be applied with all possible vigor. The ASA has been alive to its responsibilities in this field ever since the beginning of the organization. It will be remembered that it was the safety standardization program that brought the trade associations and the governmental agencies into the national standardization program side by side with the technical societies. One hundred fifty-two standards in the field of accident prevention have been approved by ASA.

The year 1946 has been one of marked activity for ASA in the development and approval of American Safety Standards. But again brevity of time makes it possible to mention only one outstanding example.

The tremendous expansion in the industrial use of x-rays during the war made it necessary that steps be

taken to advise both employer and employee as to the hazards involved if impairment of health and bodily injury on a large scale were to be avoided. One of the important avenues chosen for such a program was the development of a standard covering the construction, installation, and use of x-rays. This standard was developed under the war procedure and was completed early this year. Action already has been taken to have the standard placed in the hands of a peacetime committee operating under the leadership of the National Bureau of Standards as sponsor.

The technical contribution of the Bureau to the development of this standard and other information regarding x-rays has been outstanding. It was logical, therefore, that the Bureau should have been chosen for future leadership.

You already have heard of the important new plans the ASA has in the consumer goods field (page 6).

I will, therefore, give you one final example of important new work done during the past year—this time in the mechanical field.

As one example, out of many, I bring to your attention the new standard B5.19-1946, Life Tests of Single-Point Tools Made of Materials Other Than Sintered Carbides. This standard becomes the eighteenth American Standard developed by the ASA committee on small tools and machine tool elements, whose work is of fundamental importance to the mass production industry.

The new standard establishes for the first time a uniform basis of rating the useful life to be expected of this type of cutting tool. These cutting elements are vital parts of such machine tools as lathes, boring mills, planers, and shapers. Until the work of this committee was completed, users of such cutting elements lacked a reliable basis for setting up production schedules based on the life of these tools.

I could tell you at great length of the devoted work of individuals and organizations which has gone into the development of the new standards I have just talked about to you. Under ASA's democratic procedure, credit is so widespread for the ultimate result of any given project that the list of those to whom credit is due almost invariably would be longer than the standard itself.

I ask you, therefore, only that you continue in the coming year the magnificent cooperative effort which you have put forth in the past one.

Company Member Committee Shows Results in First Year

Recommends action on standards to solve company problems; annual meeting hears General Armstrong urge cooperation with Armed Forces; Dr Agnew explains international program

AN unusual record of achievement was reported at the annual meeting of the Company Member Committee November 22. Authorized by the ASA Board of Directors at the annual meeting of the Association in December 1945, the Committee held its first meeting in March 1946. Since that time, it has set up a number of working subcommittees and has already made several important proposals for action on standards.

The new Company Member Committee gives engineers in ASA member companies a channel through which to bring their problems and recommendations to the attention of the ASA. Until the Committee was set up, the companies that use American Standards had had no direct means of bringing their views on standardization problems to the ASA. Now the Company Member Committee has authority to make recommendations to the Standards Council on initiation of new projects, changes in standards, and for speeding work on standards. Membership is open to all ASA Company Members. Subcommittees are now hard at work studying problems of special interest to Company Members; and a meeting to take further action is scheduled for March.

Its first year of active work was carried on under the chairmanship of Willis S. MacLeod, Deputy Director of the Standards Branch, Procurement Division, U. S. Treasury Department. At its annual meeting, the Committee elected an Administrative Committee to determine the policies which will guide it in its future work. H. W. Robb, Standards Engineer, General Electric Company, was elected chairman for the coming year; and W. A. Bischoff, Bell Telephone Laboratories, vice chairman. Henry G. Lamb, ASA staff, is secretary.

In the year during which it has been at work, the Committee has recommended action on several technical problems of special interest to its members. It has presented detailed recommendations to the Sectional Committee on Bolt, Nut and Rivet Proportions for the standardization of a general purpose bolt. This bolt is desired by the users, one of the subcommittees reported. The sectional committee has also been asked to develop standard nomenclature to clear up the present confusion in the use of the terms "stud", "stud-bolt", and "continuous thread studs". The discussion, in which engineers from various companies participated, was forwarded to the committee for its information.

The Committee also recommended to the Standards Council that a peacetime project be initiated to reconsider the American War Standard Specification and Description of Color, Z44-1942, with the thought that it might either be revised or reapproved under the regular procedure. The Committee is of the opinion that this war standard has served a valuable purpose and that there is still a need for it in peacetime operations.

A new project on the subject of industrial use of color was recommended to the Standards Council and it was suggested that consideration be given to a study of four standard grays with the medium light gray to be consistent with color 7-B of the National Machine Tool Builders Association. The recommendation was based on a report that called attention to the fact that in an industrial plant various pieces of equipment come from separate sources of supply and that if the purchaser could specify standard colors for the equipment, it would

save the expense and delay of refinishing the equipment after it is installed in the plant.

At the first meeting of the Committee the need for a standard method of measuring surface roughness was discussed. It was agreed that the user group needs such a method. As a result, the Committee requested that the proposed standard on Classification of Surface Qualities, B46, be completed and approved, even though no standard samples of surface finish or exact measuring instruments could be standardized immediately. This standard has now been submitted to the ASA for approval by the sponsors, The American Society of Mechanical Engineers and the Society of Automotive Engineers.

Among the subjects discussed for consideration by the Committee during the coming year, the following were suggested as of primary importance:

- Paints and protective coatings
- Designation for the appearance of finish for metallic surfaces
- Nomenclature and designation of ferrous and nonferrous sheets, plates, strips, bars, rods, and wire
- Nomenclature and designation for commercial steels, also nonferrous metals
- Standardization of vendors' catalogs (sizes and engineering data)

Work is already started on:

- Unification and designation of properties of iron and steel
- Size, style, and format of American Standards
- Charts on ASA organization and procedure
- Proposals leading to preparation of standards for drafting room practice
- Basis for more extensive use and application of American Standards
- Nomenclature for metal end products; sheets, strips, bars, etc
- Standards for newly developed fasteners

Discussion at the annual meeting centered around the significance of international standards, the need for cooperation between industry and the Armed Forces, and certain specific problems of industry. Brigadier General Donald Armstrong, assistant to the chairman of the ASA Executive Committee, and Dr P. G. Agnew, vice president and secretary of the ASA, were the speakers.

Urging the standards engineers of Company Members to make use of the Company Member Committee to bring about more effective standardization agreement between government departments and industry, General Armstrong, told the Committee that standardization is essential as a means of conserving the natural resources of the United States.

"This country has fought its last extravagant war; we simply do not have the raw materials to do it again," General Armstrong said. "The history of World War I and World War II proved that there will not be time enough in the event of another attack by an aggressor to do the kind of emergency standardizing and specification work which went on frantically in the previous two struggles. This important effort for the national security must be undertaken now. The Company Member Committee is an ideal vehicle for close collaboration between representatives of industry and the Armed Forces.

"If this collaboration bears its proper fruit," General Armstrong continued "we shall avoid the tremendous and perilous waste of raw materials which characterized the late struggle. This is an absolute necessity. Few realize the extent to which we have become a have-not nation.

"In the Company Member Committee, the mutual problems of the Armed Forces and of industry in standardization can be discussed, and thinking can be developed about our shortages of materials, about the need for interchangeability, and about the need for simplification that will decrease machine hours and man hours in production."

From his experience as head of the Chicago Ordnance District and Commandant of the Industrial College of the Armed Forces, General Armstrong cited cases where greater understanding of production prob-



Members of the Company Member Committee

Left to right: F. P. Kuhl, Consolidated Edison Company; W. A. Bischoff, Bell Telephone Laboratories; H. H. Watson, RCA Victor Division, Camden, N. J.; C. T. Hatcher, Consolidated Edison Company.

New Officers of the Committee

The Administrative Committee which will determine policies for the ASA Company Member Committee was elected at the Committee's annual meeting. Officers are H. W. Robb, General Electric Company, chairman; W. A. Bischoff, Bell Telephone Laboratories, vice chairman; and Henry G. Lamb, ASA staff, secretary.

Members of the Administrative Committee are: W. L. Barth, General Motors Corporation; E. W. Gardinor, International Business Machines Corporation; H. A. Gillan, Eastman Kodak Company; P. L. Houser, International Harvester Company; L. J. Jacobi, The Detroit Edison Company; W. S. MacLeod, Treasury Department; A. W. Meyer, Brown and Sharp Manufacturing Company; Thomas Spooner, Westinghouse Electric Corporation; W. C. Wagner, Philadelphia Electric Company; and S. H. Watson, Radio Corporation of America.

lems on the part of specification writers would have saved time and conserved materials. Such a case was that of certain specifications for forgings which resulted in rejection of five out of six of the forgings produced. A slight change in the requirements salvaged 99 percent of the former rejections, General Armstrong said. However, he pointed out, the service requirements of the Armed Forces are far more severe than those of ordinary civilian users, and therefore civilian specifications will not necessarily be satisfactory for equipment used by the Armed Forces. For example, he said, a 6 x 6 truck is needed in civilian life only under the most extraordinary circumstances, but in the Army it is essential for traveling across country. A two-wheel drive truck cannot pull through sand and mud, however powerful it is, he declared.

Members of the Company Member Committee, commenting on General Armstrong's remarks, urged greater understanding of industry's problems by Government specification writers, and suggested that emphasis on performance rather than on specification details might help to solve some of the difficulties between industry and the services.

The subject seemed of such importance to the Committee that it voted to refer the discussion to the Administrative Committee for study and to organize any subcommittees that it believes may be needed.

Dr Agnew described the new International Organization for Standardization set up by the national standardizing bodies of 25 countries. (See page 21; also INDUSTRIAL STANDARDIZATION, December 1946, page 297.) The prestige of American industry and technology is at a high level, he said, and an opportunity for leadership in international work lies before this country if we are willing to accept the responsibility for it.

Interest in standardization in other countries is high, he declared. The Russians have a staff of 200 engineers and technologists who work throughout their entire industrial structure; and the French also have a very large staff. Standardization in the United States has been a repair job, Dr Agnew said; standards here are usually set up to solve a controversy after the controversy has developed. Standardization bodies in these other countries, operating under Government control, are working on a planning basis rather than on a repair basis, he said.

Dr Agnew explained that when projects are set up by the International Organization for Standardization, each project will be in charge of one of the national standardizing bodies. Every other national standardizing body will have an opportunity to cooperate on the committee. This, in a sense, he said, is an international sectional committee. The secretariat for that committee corresponds to the sponsorship of one of the ASA sectional committees. The American Standards Association will take part in an international project whenever American industry indicates that it has a special interest in that project.

Misunderstandings due to differences in performance ratings, definitions, and service factors may mean a loss of markets in other countries, Willis S. MacLeod, retiring chairman of the Company Member Committee, told the committee. "You cannot maintain an economy of $150,000,000,000, such as ours, unless you have those markets," he said. "You cannot avoid wars unless you generate understanding through the interchange of goods."

The answer, he declared, is standards. "Standards are a common language, a common measure, common interchangeability of the engineering phases of the goods exchanged," he said.

Institute of Laundering Is ASA Associate Member

THE American Standards Association is pleased to welcome the American Institute of Laundering into its organization as a new Associate Member.

Originally known as the Laundry-owners National Association of the United States and Canada when it was founded in 1883, the American Institute of Laundering is now one of the oldest and best known national trade associations in existence.

One of the most valuable contributions made by the organization has been its creation of the Laundry-Tested and Approved Seal as an official endorsement of those items which meet prescribed professional laundry standards. Working with up-to-date laboratory equipment, tests are conducted to determine such washability characteristics as tensile strength, whiteness retention, shrinkage, and color fastness. Special tests have also been developed to determine the action of deodorants on textiles and the practical laundry performance of other products or processes requiring special consideration.

As a basis for this laboratory pretesting of washable merchandise, the Institute has established standards by which washables can be judged for normal wear and satisfactory launderability. The Laundry-Tested and Approved Seal is awarded to that merchandise which conforms with these Institute standards:

(1) Quality of cloth
(2) Color fastness of fabrics, trimmings, threads, and buttons
(3) Shrinkage within a satisfactory tolerance
(4) Construction of finished product
(5) Satisfactory launderability as shown in repeated tests under actual laundering conditions

To insure uniform maintenance of standards, it is required that an approved line of merchandise be submitted for testing regularly.

Among its numerous additional services to members, the AIL offers guidance on problems of production and engineering, sales management, accounting, advertising, and public relations. Through the AIL School of Laundry Management, an intensive program of practical training in laundry management and operation is available for newcomers in the field.

Although a recent addition to the official membership of the ASA, the American Institute of Laundering is not a stranger to the workings of the Association. Its vital interest in the field of textile research has resulted in the participation of AIL representatives on sectional committees as well as on the Advisory Committee on Ultimate Consumer Goods.

Lack Is ASA President; Taber New Vice President



Frederick R. Lack

FREDERICK R. LACK, vice president and director of the Western Electric Company in charge of the Radio Division, is the new president of the American Standards Association, and George H. Taber, Jr, executive vice president of the Sinclair Refining Company, is vice president, it was announced at the annual meeting.

Mr Lack, who has been a member of the ASA Board of Directors for the last two years, and vice president during 1946, was nominated by the Institute of Radio Engineers.

He first joined Western Electric as an assembler in the manufacturing department upon graduation from high school in 1911. A year later he was in the engineering department at work on life-testing and waterproofing telephone cords, and after service in the first World War returned to do development work on radio telephony. Entering Harvard University as a special student in 1923, he earned his B.S. degree with high honors in two and a half years.

Mr Lack then entered the Bell System as a member of Bell Telephone Laboratories, engaging in studies preliminary to the short wave trans-Atlantic radio. His investigations led to the introduction of radio oscillators relatively free from temperature chanical engineering from the University of Pennsylvania in 1911, and effects, a development which greatly increased the utility of radio for mobile applications. Mr Lack had charge of designing and building the ship equipment for the Bell System's first commercial installation of ship-to-shore radio telephone on the "Leviathan".

Following three years' work on vacuum tube development, he left the Bell Laboratories in December, 1938, to become commercial manager of the Western Electric Company and in October, 1939, was appointed manager of the newly formed Specialty Products Division. He was elected vice president of the company in 1942 and shortly thereafter became manager of the Radio Division.

Mr Lack is a director of the Western Electric Company, the Institute of Radio Engineers, the Radio Manufacturers Association, and Smith-Winchester Manufacturing Company.

Mr Taber, the new vice president of the ASA, has been engaged in various branches of the petroleum industry since 1915, and was for many years in charge of all refining operations for Sinclair Refining Company, besides being its former president.



George H. Taber, Jr

He received his B.S. degree in me- his Master's Degree in chemical engineering from the Massachusetts Institute of Technology in 1913.

Mr Taber is a member of the American Society of Mechanical Engineers, the American Chemical Society, the Society of Automotive Engineers, and the American Institute of Mining and Metallurgical Engineers.

Kennedy Elected to ASA Board

Most recent appointment to the Board of Directors of the American Standards Association is that of R. Oakley Kennedy, formerly associated with Cluett, Peabody and Company, Inc, makers of Arrow shirts. As vice president in charge of production for that organization, Mr Kennedy was particularly concerned with the development of new processes and standards and it is this close contact with the textile field which especially qualifies him as Member-at-Large on the ASA Board.

Mr Kennedy entered the employment of Cluett, Peabody and Company in 1905 as a shipping clerk. He later became foreman, superintendent, and, finally, vice president (1927-1944), while, at the same time, serving as a director of the organization from 1917-1944.

Among his numerous other activities, Mr Kennedy is an associate of Ekholm Associates, Boston; a director of Ware River Railroad Company, and the Boston and Albany Railroad Company; a trustee of Russell Sage College, Troy; and holds membership in the Society for the Advancement of Management and the Newcomen Society of England.

He is at present associated with Ginsberg Enterprises in New York.

New Work in Electrical Field

ANNUAL project reports presented to the Electrical Standards Committee indicate that considerable progress will be made in the electrical field during the coming year.

Watch for—

revisions of these American Standards:

Terminal Markings for Electrical Apparatus, C6.1-1944;
Specifications for Dry Cells and Batteries, C18-1941;
Industrial Control Apparatus, C19.1-1943;
Electrical Indicating Instruments, C39.1-1938;
Electric Railway Control Apparatus, C48-1931;
Rotating Electrical Machinery, C50-1943;
Capacitors, C55-1934;
Measurement of Test Voltage in Dielectric Tests, C68.1-1942;
Illuminating Engineering Nomenclature and Photometric Standards, Z7.1-1942.

reorganization of these ASA Sectional Committees:

Radio-Electrical Coordination, C63, under the sponsorship of the Electrical Standards Committee;

Code for Electricity Meters, C12, with a proposal for the incorporation of the war standard revision as a permanent part of the peacetime standard, C12-1941;

Wood Poles, O5, to include other poles for use in construction of electric supply and communication lines regardless of species of wood from which they were made and preparation of new standards, including consideration of the war standard;

Storage Batteries, C40, with a revision of the existing standard;

Definitions of Electrical Terms, C42, with a revision of the existing standard.

completion of draft revision on:

Transformers, Regulators and Reactors, C57;

Carbon, Graphite and Metal-Graphite Brushes, C64

proposed additions to these existing American Standards:

Code for Protection Against Lightning, C5.1-1937, C5.2-1937;
Rolled Threads for Screw Shells of Electric Sockets and Lamp Bases, C44-1931;
Attachment Plugs and Receptacles, C73-1941.

completion of American standards on:

Household Electric Ranges, C71;
Electric Water Heaters, C72.

preparation of new draft standards covering:

Resistance welding machines;
Resistance welding controls;
Arc welding apparatus;
Electric fences;
Incandescent lamps;
Electric discharge lamps (fluorescent);
Methods of testing lamps.

consideration of changes in the scope of these ASA sectional committees:

Vacuum Tubes, C60, to cover the entire field of electron tubes;

Aluminum Conductors, C11, to be entitled "Electric and Related Properties of Aluminum Conductors, including Aluminum Cable Steel Reinforced".

issuance of a standard for a one-year study on:

Preferred voltages 100 volts and under, C67.

consideration of the establishment of a correlating committee:

In the field of electronics and communications before proceeding with further reorganization of the ASA Sectional Committee on Radio, C16.

Building Code Administration Subject of C of C Forum

The Improvement of Administration of Building Codes was discussed at a forum presented by the U. S. Chamber of Commerce through its Construction Division on November 20 at Washington, D. C.

General chairman of the meeting was George M. Thompson, chief, Division of Codes and Specifications of the National Bureau of Standards, and chairman of the ASA Building Code Correlating Committee.

The speakers were Clinton T. Bissell, consulting engineer, National Board of Fire Underwriters; Hal Colling, managing secretary of the Pacific Coast Civic Officials Conference; J. L. Haynes, chief, Construction Division, U. S. Department of Commerce; W. V. Reed, deputy expediter, National Housing Agency; Bernard O. Savage, member, Board of Standards and Appeals, City of New York, representing the Building Officials Conference of America; and H. M. Lawrence, secretary of the ASA Building Code Correlating Committee.

The speakers discussed the interest and the work of their organizations in the field of building codes.

USNC Elects Adams President

AT its annual meeting, the U. S. National Committee of the International Electrotechnical Commission elected the following officers:

L. F. Adams, General Electric Company, *President*

P. H. Chase, Philadelphia Electric Company, *Vice President*

H. S. Osborne, American Telephone and Telegraph Company, *Vice President and Treasurer*

In electing Mr Adams, who represents the manufacturing group in the USNC, a long-time tradition of selection from the general interest group has been broken. The choice of Mr Adams at this time is extremely logical since the trend of work immediately preceding the war had been more and more toward standardization of the methods of rating and testing electrical machinery and associated problems, rather than toward fundamental electrical problems of units, measurements, and the like which were among the original undertakings of the organization. This trend is expected to continue when work is resumed.

Technical meetings on the subject of radio interference measurement have already been held in London where the USNC was represented by a delegation of three experts on the subject. The U. S. Navy has been most helpful in this work and has made available two of the delegates.

A meeting of the Council of the IEC was held in July. A report on this meeting by Dr Crittenden who, with Dr Agnew, represented the USNC at the meeting, was published in the September issue of INDUSTRIAL STANDARDIZATION.

A meeting of the Committee of Action was held in London on October 14. Dr Crittenden also attended this meeting. Consideration was given to the methods to be followed in conferring with the ISO concerning affiliation of the IEC therewith. Other routine business was transacted.

Mining Correlating Committee Plans Active New Program

THE program of the Mining Standardization Correlating Committee which was largely dormant during the war period has now been reactivated and its members are busy developing a definite plan of operation for carrying on its work.

A draft for a revision of the American Standard for Outside Coal Handling Equipment, M10-1928, has already been prepared and reviews are under way on standards having to do with Drainage of Coal Mines, M6-1931; Fire Fighting Equipment in Metal Mines, M17-1930; and Safety Rules for Installing and Using Electrical Equipment in Metal Mines, M24-1932. A research investigation to determine whether wire ropes should be withdrawn from service is expected to be initiated soon which will furnish the basis for a review of the standard on Wire Ropes for Mines, M11-1927. Revised specifications for the rope itself were developed during the war.

Some progress has been made in connection with possible formulation of a code or of a standard for safety in quarries. This subject has been pending for a long while but seems, at last, to be coming into line for some real work.

Following an accident last year, the Canadians have made extended studies of methods of preventing accidents connected with mine hoists, and their data is being used by the ASA committee in its work on a proposed American Standard.

Standards in the mining field, particularly those connected with safety in coal mine operations, have become more rigidly controlled in recent years. In 1941, Congress passed a bill to provide for Federal Inspection of Coal Mines to be based upon standards developed and administered by the Bureau of Mines. More recently, in accordance with the agreement of May 29, 1946, between the Coal Mines Administrator and the United Mine Workers of America, a series of standards entitled Federal Mine Safety Code for Bituminous Coal and Lignite Mines of the United States became effective.

Daniel Harrington, chief of the Health and Safety Branch of the Bureau of Mines and chairman of the MSCC, declared in his annual report to the Standards Council that "irrespective of the necessity or desirability of this increased governmental and contractual control, it is evident that any program of voluntary standardization requires re-examination and perhaps modification. Preliminary studies in the MSCC indicate that there is still a definite field for voluntary standards, especially if accompanied by research, and it is hoped and believed that the MSCC will be able to carry on a worthwhile program of a more active nature than it has for several years in the past."

Abbreviations for Drawings Near Completion

A meeting of the ASA Committee on Graphical Symbols and Abbreviations for Use on Drawings was held Tuesday, December 3.

Subcommittee I on Mechanical Symbols reported organization of 14 subgroups to assemble and prepare the various types of mechanical symbols. It is hoped that each of these subgroups will have their preliminary work completed and ready for presentation at a meeting of Subcommittee I in May, 1947. A meeting of Subcommittee I was held December 2 at the Pennsylvania Hotel.

Subcommittee II on Electrical Symbols reported proposed American Standard Basic Graphical Symbols for Electric Apparatus, Z32.12, awaiting the final approval of one sponsor, the other having approved in November.

Subcommittee III on Abbreviations for Use on Drawings reported that, on the approval of the Standards Council, the proposed American Standard Abbreviations for Use on Drawings, Z32.13, will become an American Standard, probably early in 1947.



Book Marks

Modern Packaging Encyclopedia. 1946-47 Edition (Packaging Catalog Corporation, 122 East 42nd Street, New York 17, N. Y., $5.00)

Known through 17 previous editions as the *Packaging Catalog*, *Modern Packaging Encyclopedia* appears this year under its new name which more adequately describes the functions it has always performed. Aimed specifically at today's competitive peacetime market, the 1946-47 Encyclopedia covers every phase of packaging activity—design, legal considerations, materials, package parts, packages, packaging machinery, and packaging techniques. More than half of the articles bear the signatures of qualified technicians in many lines.

In order to make the Encyclopedia as accessible as possible, a complete alphabetical index of subjects, more expansive than the briefer table of contents permits, forms a part of the introductory section of the book.

New features that are especially noteworthy include an economic-historical review of the development of packaging with particular reference to its commercial significance; a symposium in which package designers dissect their own activity; a check list for package planning that embraces structural and economic elements as well as appearance factors; a bibliography of current magazine literature pertinent to packaging; new trends in legal regulation of trade-marked goods; a new photographic review of folding box types; diagrammatic presentation of bag closing methods; three articles on the theory and practical aspects of vacuum-gas packing; recent developments in the fast-moving field of plastics; adhesive from the user's point of view; and package machinery as the production man sees it.

News from Other Countries

Brazil Starts Work on Safety Standards

WITH its proposed standard for the Statistical Survey of Industrial Accidents, the Associacão Brasileira de Normas Técnicas (ABNT) has begun its program for development of safety standards. ABNT thus becomes the first Latin-American national standardizing body to undertake the preparation of safety standards along the lines of those successfully followed in the United States.

This work will receive further impetus through the establishment of a branch office with the Brazilian Association for the Prevention of Accidents in the same location and under the same direction as that of the existing branch of ABNT in São Paulo. Two committees are meeting weekly to work on standards for fire-fighting equipment and protection of cotton from fire in warehouses and in transit. The American Standards Association has been asked to aid in this activity by supplying documentary material.

The Brazilian Association for the Prevention of Accidents, which is affiliated with the Inter-American Safety Council, has already cooperated with ABNT in the translation and distribution of the draft revision of the ASA Safety Code for Power Presses and Foot and Hand Presses, B11-1937. It is also cooperating closely in the preparation of other safety standards such as the proposed Brazilian standard for the Statistical Survey of Industrial Accidents mentioned above. This standard is consistent with the American Standard Method of Compiling Industrial Injury Rates, Z16.1-1945.

Indian Standards Association Starts Work

A new Indian Standards Association has just been officially organized by a formal decree of the government of India. K. K. Nasta, a member of the staff of the new association, has been spending the last three months at the British Standards Institution learning the standardization procedures and methods of the BSI. The Indian Standards Association was represented by the largest delegation, nine men, at the London meeting of the International Organization for Standardization. It will have an active role in the international work as a member of the ISO Council.

India is particularly interested in standards for agricultural equipment, tests for agricultural products, soil tests, grading, and nomenclature connected with agricultural processes.

Study U. S. Views on Metric System

A survey to determine what the official position of the United States should be with respect to world-wide use for civil aviation of the English versus the metric system of units is now going forward through the U. S.-PICAO Technical Committee on Dimensional Standardization. The committee was appointed by a subcommittee on PICAO (Provisional International Civil Aviation Organization) matters of the Air Coordinating Committee, Civil Aeronautics Administration. The American Standards Association has been asked to furnish information from the viewpoint of industry in general concerning the costs that might be involved in a change to the metric system. Associations in the aeronautics field are also being asked to give data.

The request has been referred to the Metric Committee of the American Standards Association. L. F. Adams, General Electric Company, who represents the National Electrical Manufacturers Association on the Standards Council, is chairman.

Palestine Continues Work On Standards

"In this conscienceless postwar world, dominated by fear and torn by power politics . . . the builders have no choice but to continue fearlessly with the task of reconstruction", says the editor of the *Journal of the Association of Engineers and Architects of Palestine.*

As far as standardization is concerned, this statement seems to be correct. Regardless of the almost daily acts of violence occurring in Palestine and the many restrictions imposed upon the population, the work of standardizing committees is steadily going on. According to Bulletin No. 5 of the Standards Institution of Palestine, there are 21 active subcommittees, two-thirds of which are preparing drafts for standards having direct or indirect relation to building materials, such as concrete bricks, hollow bricks, cesspitt blocks, sand-lime bricks, burnt clay bricks, wooden doors, electrical installation materials, pumps, well-boring specifications, etc. The remaining third of the subcommittees' studies cover subjects of more general nature, such as Hebrew engineering symbols and abbreviations, testing methods of reinforced concrete, water level recorders, electrical household appliances, etc. As a rule, the Palestine standardization committees follow very closely British practice.

Council Authorizes Office Equipment Project

A new project which will develop standards for the broad field of management and operation of an office has been approved by the Standards Council. More specifically, the work will include dimensions, quality, performance characteristics, methods of testing, and nomenclature for office equipment, paper used in offices, forms, records, office procedures, supplies, and business machines. Sponsorship of this sectional committee will be undertaken by the National Office Management Association and an organization meeting will be held shortly.

ASA Is First Body to Join International Organization

BY action of the Board of Directors at its annual meeting November 22, the American Standards Association became the first of the national standards organizations to become a Member-Body of the new International Organization for Standardization. The Board ratified the constitution and rules of procedure of the ISO with the provision that the ASA Member-Bodies will be given an opportunity to propose changes for clarification of several doubtful points. The ASA has notified the international organization that it may recommend changes.

As reported by P. G. Agnew, vice president and secretary of the American Standards Association, who was one of the ASA delegates to the conference which set up the ISO, the Organization has already started work on its technical program, and is now engaged in assigning secretariats for a list of technical projects tentatively agreed upon at the meeting. It is expected that a general secretary and staff will have been chosen and permanent headquarters established in Geneva, Switzerland, by May, 1947. The first meeting of the Council is being planned for that time.

Until the permanent headquarters is established, active work on the technical projects will be made possible by the fact that the United Nations Standards Coordinating Committee has agreed to stay in existence as long as it is needed. The UNSCC will maintain its London office, with C. le Maistre in charge, as a service to the member nations of the ISO until the Geneva office is opened. It has sufficient funds to continue work for several months.

The United States has already accepted the secretariat for technical committees on petroleum products, cinematography, and photography, in which American industry had already indicated its interest. The American Standards Association is consulting the industries concerned as to whether the ASA should accept the secretariat for the technical committees on plastics terminology, agricultural machinery, viscosity, boilers, and rayon.

A few of the technical subjects which have been tentatively approved as possible international projects, and the country which has been suggested as the secretariat for each subject, are listed below.

Metal food containers (United Kingdom)
Metric and inch threads (Sweden)
Bolts and nuts (Poland)
Iron and steel (United Kingdom)
Rubber (United Kingdom)
Sheet and wire gages (Australia)
Gears (Belgium)
Non-metallic packaging of frozen foods (Norway)
Timber grading and classification of defects (USSR)
Limits and fits (France)
Ball and roller bearings (Sweden)
Aircraft and airfield lighting (Canada)
Tools (France)
Automobiles (France)
Couplings (Belgium)
Commercial zinc (Belgium)
Machine tools (France)
Building standards (modular planning, Sweden; tests for building materials, France)
Ocean navigation (Holland)

(*Continued on page* 22)



Delegates at the London Conference that set up the O S O

Front row, left to right: J. Ritchie (South Africa); Col W. R. McCaffrey (Canada); W. R. Hebblewhite (Australia); G. E. Harrison (United Kingdom); D. Golyaev (USSR); John Ryan (United Kingdom); H. Tornebohm (Sweden); P. G. Agnew (USA); V. List (Czechoslovakia); R. Tavernier (France); General P. Salmon (France); S. T. Shang (China); K. Wessel (Sweden); K. Heiberg (Norway). Others in the group include: Mrs Linton (Interpreter); T. deCastro (Brazil); C. Rossi (Italy); A. W. Willberg (Finland); F. Lindgren (Sweden); T. Czaplicki (Poland); W. G. Sutton (South Africa); Mr. Tao (Interpreter); J. T. Hendry (Australia); J. P. deEscobar (Brazil); N. Parfenov (USSR); A. Gonzalez (Mexico); Max Reichert (Belgium); E. C. Crittenden (USA); A. Arnstein (Palestine); J. Oderfeld (Poland); J. R. Beard (United Kingdom); H. E. Glahn (Denmark); L. Brandolin (Italy); W. Paszkowski (Poland); D. M. Jervis (New Zealand); M. H. Wallace (New Zealand); Gunnar Mo (Norway); J. Birle (France); F. Streiff (Switzerland); P. Good (United Kingdom); M. Svirin (Interpreter); H. vanSchouwenburg (Holland); E. A. Wegelius (Finland); R. G. Burt (India); R. Fenykovy (Interpreter); W. Kuert (Switzerland); C. leMaistre (UNSCC).

(*Continued from page* 21)

Pipes (Switzerland)
Rivets (Holland)
Pigments, raw materials for paints (Holland)
Shellac (India)
Mica (India)
Surface finish of metal surfaces (USSR)
Methods of analysis of essential oils (Brazil)
Sprinkler plants (Austria)
Copper and copper alloys (Canada)
Definition of the term "rayon" (USA)

The Committee on Technical Subjects, which will coordinate the recommendations from the national standards bodies and report to the ISO Council, has recommended that all Member-Bodies of ISO confine their work in the first instance to subjects which have international significance particularly in reference to trading conditions, etc.

Howard Coonley, chairman of the executive committee of the American Standards Association, is president of the International Organization for Standardization, and Gustave L. Gerhard, staff president of the Belgian Standards Association, is vice president. The governing Council is to be made up of representatives of China, France, Great Britain, USA, and USSR, who will serve for five years, and representatives of Australia, Belgium, Brazil, India, Norway, and Switzerland, who will serve for one year.

In announcing the fact that the American Standards Association had joined the new organization, Dr Agnew said: "In a series of four international meetings covering a year, many misconceptions were swept away and a solid basis of agreement was reached on the part which international standards can play in freeing the flow of international trade and so raising the living standard of all peoples everywhere.

"The organization of the ISO marks a new phase in international cooperation. In the past, international standards were pioneered by engineering groups. Now organized industry is taking an active and vigorous role in all of the countries, not only those that are highly industrialized, but also those which are using standards as a tool to speed their full entrance into the modern industrial world."

The Industrial Future of China

(*Continued from page* 5)

eign country. One of the factors mentioned was the state of the national budget of the country concerned. In connection with China it was said that 80 percent of the Chinest national budget was devoted to military expenses and that this was considered excessive. The fact is that this large percentage for military expenditure was true only of the budget for 1945 when large-scale preparations still had to be provided for in the common effort to bring about the defeat of the enemy. I am authoritatively informed by Dr T. V. Soong, the Chinese Prime Minister, that only 60 percent of this year's budget is devoted to military expenses, that is to say, a reduction of 20 percent from last year, and that the next year will see a further reduction of the same item. This is a signal improvement in the finances of the Chinese Government in the postwar world which cannot but produce a salutary effect upon the Chinese economic situation in general.

Reverting to the question of China's industrial development, I firmly believe that its importance cannot be overestimated. This industrial development will at once ameliorate the national economy of China, raise the standard of living of her people, and call for the importation of a great variety of machinery and other capital goods. One of the immediate results of this development will be an improvement in the processing of raw materials and an increase in the export of such properly processed products for the manufacturing industry in the United States. China's produce such as bristles, tungsten, antimony, tea, and wood oil will find a greater demand in the United States after they are well and properly processed. This, in turn, will increase the purchasing power of the Chinese people and enable them to buy more from the United States.

If the Chinese industry should adopt standard methods of processing and production, such as are in general application in the American industrial domain, our two countries could cooperate in the economic and industrial field to an extent beyond our calculation, and such extensive cooperation between us will not only profit our two countries' respective economies but will promote trade and commerce of the world. Imagine what a great mutual advantage would accrue to our two countries if, through the adoption of American standardized methods for Chinese business and industry, the immense economic resources of our two countries could be pooled in time of need.

Your Association seeks to promote the adoption of standards in the realm of industry and business. But the fundamental principle of standardization should be applicable in other fields of life and activity. If the peoples of the world could agree upon a common standard of conduct and practice, a great step will have been made toward the attainment of mutual understanding, mutual confidence, and universal peace. Only then will suspicion, distrust, friction, and conflict disappear among the nations of the world.

The Charter of the United Nations sets forth certain common principles and purposes for the member States to observe. But by the very nature of the international community as it is constituted at present, the standards of conduct thus established for the family of nations are perforce limited in their scope and application. If we hope to enjoy the blessings of enduring peace, we must try to make the ideal of one world a living reality with one standard of good and evil, of right and wrong, and of justice and injustice. May we of our generation and the generations to come all strive to bring about this desired end.

H. G. Lamb on Committee

Henry G. Lamb, safety engineer of the ASA, will serve on the Special Activities Committee—one of the newer committees of the Metropolitan Chapter of the American Society of Safety Engineers.

Proposed Safety Requirements Allow Plastics for Auto Windows

WHEN the American Standard for safety glass used in motor vehicles was first completed in 1935, it included requirements for laminated glass, heat-treated glass, and wire glass. During World War II, however, considerable research went into developing plastics that could be used as glazing materials in airplanes. The wide use of these new materials during the war has now brought a request for consideration of plastics for glazing motor vehicles to the Sectional Committee on Specifications and Methods of Test for Safety Glass, Z26. As a result, the committee is considering a proposal that requirements for plastics for use in windows of motor vehicles, although not in windshields, be included in the standard. A second proposal, to include requirements assuring that passengers can escape easily and quickly from a motor vehicle after an accident is also before the committee for consideration.

Recommendations Prepared By SAE Based on Tests

Detailed recommendations for the inclusion of plastics have been put into the form of a proposed revision of the standard by the Society of Automotive Engineers. This proposal, which is based on tests and investigations carried out by an SAE subcommittee, has been sent to members of the sectional committee. On the basis of the work done by its subcommittee, the Society of Automotive Engineers reports to the committee that it believes that plastic materials meeting the proposed standard requirements would be satisfactory for use in windows of motor vehicles. The proposed revision to the standard provides that if plastics are used they must not produce more than a specified amount of distortion to the vision, and that temperature changes or cleaning chemicals must not affect their strength, clarity, or freedom from distortion.

The American Standard Safety Code for Safety Glass provides test procedures and performance requirements which can be used by motor vehicle commissioners and other regulatory officials as the basis for their approval of safety glass in the motor vehicles coming under their jurisdiction. Safety glass meeting the requirements of the standard is marked "AS" or "American Standard". Because it must meet special requirements, safety glass used in windshields is marked both "AS" and "WS". If the proposed revision now being considered by the sectional committee is approved, these recommended standard tests and performance requirements can be used by regulatory officials in approving car, bus, or truck windows made of plastic materials.

Safety Features for Window Assemblies May Be Added

The additional question being considered by the sectional committee may, if approved, enlarge the scope of the standard to include safety features for the window assembly of a car, bus, or truck, in addition to the glazing materials. The safety of the passengers may depend upon how easily and quickly they can break the window, and upon whether or not the opening is large enough to crawl through, the requests for the enlarged program explained.

As an aid to the committee in making its decision, the National Bureau of Standards has completed a series of laboratory tests to measure both the steady and impact force that bus passengers are able to exert in an effort to push out a bus window. The tests were made to determine how much force can be exerted when the bus is standing upright and also when it is lying on its top or side. It was necessary to design and build a special device for these tests because no suitable load-measuring devices were commercially available.

The sectional committee, with a membership representing manufacturers of glazing materials, safety organizations, bus and truck operators, manufacturers of motor vehicles, motor vehicle administrators, and U. S. government departments, works under the sponsorship of the National Bureau of Standards and the National Conservation Bureau.

Dr Sanford A. Moss

Dr Sanford A. Moss, famous for developing the turbosupercharger and long active in the work of the American Standards Association, died suddenly of a heart attack at his home in Lynn, Massachusetts, on November 10 at the age of 74.

At the beginning of World War II, despite the fact that he had retired, he resumed his work as a consulting engineer for the General Electric Company and when the United States entered the war he became consultant to the Army Air Forces. His turbosupercharger, perfected too late for service in World War I, is credited with contributing largely to the success of American air power in the recent war.

Dr Moss had been active for many years in the ASA project on standardization of symbols used in engineering and mathematical equations and formulae, and was vice chairman of the Sectional Committee on Letter Symbols and Abbreviations for Science and Engineering, Z10.

He received the 1940 Collier Aviation Trophy jointly with the Army Air Forces for "outstanding success in high altitude flying by the development of the turbosupercharger". Dr Moss also received one of General Electric's Coffin awards for his supercharger work and in 1944 was awarded the Sylvanus Albert Reed Award from the Institute of Aeronautical Science. Recently the Howard N. Potts Gold Medal was presented to him.

Safety Committee Changes War Work to Peace Projects

The past year has served as a transition period for the Safety Code Correlating Committee in converting war projects to the renewed activity of regular peacetime projects. Under regular procedure, the following projects have been initiated to continue the work previously done by war committees:

Safety in Electric and Gas Welding and Cutting Operations, Z49
Protective Occupational Clothing, L18
Safety Color Code, Z53
Safety Code for the Industrial Use of X-Rays, Z54
Rubber Protective Equipment for Electrical Workers, J6, the scope of which has been modified to state what has always been understood—that such equipment is for the use of any electrical workers who need such protection.

Work on Mechanical Standards

TO promote the development of American Standards in the mechanical field, as well as their proper coordination, will be the aim of the Mechanical Standards Committee in planning its future program, according to Alfred Iddles, vice president of the Babcock and Wilcox Company and chairman of the MSC, in his annual report to the Standards Council. In line with this policy, a subcommittee is being organized to work with ASA staff in making a survey of mechanical standardization as a basis for further action of the MSC.

In addition, during the coming year you may expect:

approval of these proposed American Standards now under consideration:

Steel-Socket Welding Fittings, B16.11—another addition to the 15 standards developed by the ASA Committee on Pipe Flanges and Fittings, B16, for use in the design of pipe lines serving the power, oil, gas, heating, and refrigerating industries

Bronze or Brass Screwed Fittings, 125 lb, B16.15—the first proposed American Standard for products made of nonferrous materials submitted to the ASA. So far, the sectional committee has developed only standards for flanges and fittings made of cast iron, malleable iron, or steel

Surface Roughness, Waviness and Lay, B46—to establish a basis for uniform rating of the relative smoothness or roughness of surfaces, such as those resulting from different machining processes. Symbols are also recommended for use in specifying the desired character of a surface on a drawing

organization of a sectional committee:

To handle the newly initiated project, Numbering System for Anti-Friction Bearings. Sponsored by the MSC, its scope of work has been tentatively adopted as: "A numbering system for the identification and classification of anti-friction bearings."

plans for a revision:

Of the Tentative American Standard Tolerances, Allowances and Gages for Metal Fits, B4a-1925, taking into consideration a final report of the ASA War Committee on Cylindrical Fits entitled "Limits and Fits for Engineering and Manufacturing" and drafted by cooperation of American and British experts.

continuation of work:

For international agreement on the standardization and unification on screw threads (ASA Sectional Committee B1).

action on:

The American War Standard, Color Code for Lubrication of Machinery, Z47.1-1945. A canvass of industry is now being made to determine whether this war standard should become a regular American Standard, possibly with some amendments, or whether it should be dropped.

ASA Board of Directors Votes New Pension Plan

The ASA Board of Directors acted at its annual meeting November 22 to set up a more liberal pension plan for employees of the American Standards Association, to take further steps to consider incorporation of the ASA, and to join the new International Organization for Standardization (see page 21).

The pension plan approved several years ago provided for retirement of ASA employees at the age of 70. The new plan provides for additional contributions to make it possible for employees to receive the same pension for retirement at 65, although any employee may continue longer with the Association by agreement with the ASA. This pension will amount to 1 percent of salary for each year of service, with a maximum of 30 percent. The plan also provides that the employee will receive the full amount deposited by both himself and the ASA if he leaves the employment of the ASA; and will receive a death benefit allowance equal to the total contribution both by himself and the ASA or the cash value of the annuity, whichever is greater. The pension plan takes the place of social security, since the American Standards Association as a nonprofit organization does not come under the provisions of the Social Security Act.

Building Code Committees Push Work

THE importance of relations with governmental agencies and other organizations interested in the development of the ASA's building code program has been increasingly evident during the past year. The interest of these groups in providing desperately needed housing for returning veterans and for their families, as well as to provide a continued flow of new housing, has led to continual pressure on the Building Code Correlating Committee to complete its several building code standards. This was reported to the Standards Council by George N. Thompson, chief of the Division of Codes and Specifications, National Bureau of Standards, who is chairman of the BCCC.

Work of Three Sectional Committees Near Completion

As a result, much action is planned by the BCCC, through its sectional committees, for the coming year, Mr Thompson stated. At present, the work of three sectional committees is nearly ready for submittal to ASA. This includes a revision of the American Standard Administrative Requirements for Building Codes, A55.1-1944, which has just been passed by the sectional committee; and two proposed standards on building code requirements for signs and outdoor display structures and on building code requirements for excavations and foundations which have also been approved by their sectional committees.

In addition, the work of committees on building code requirements for fire protection and fire resistance, A51; chimneys and heating appliances, A52; and fire-extinguishing equipment, A54, is under way. The first two had been delayed while awaiting research data. The preparation of a draft for Committee A61 on Building Code Requirements for Wood, has just been commenced by the Forest Products Laboratory, U. S. Department of Agriculture, joint sponsor with the National Lumber Manufacturers Association.

Two Wars— The Last and The Next

(*Continued from page* 3)

You hear the argument that we should not alter an organization which has won two wars. Sitting Bull won the Battle of the Little Big Horn with bows and arrows. Dewey won the Battle of Manila Bay with six-inch guns. Could anyone suggest that, because two great victories were won with antique weapons, we should hold fast to old means and modes and methods?

Need Reorganization To Gain Speed, Economy

There is every indication that we must reorganize our national defensive structure for the new type of warfare I have indicated, where time and space are practically eliminated. We will need more speed of decision than we were able to get in the last war. It is enough to say for the proposed unification of the Armed Forces, with Army, Navy, and Air Forces on coequal status, that economy in peace and efficiency in war demand it.

A system of national security for the United States in the future must have these ingredients:

First of all, our State Department must be an organization which will entice and offer an ample career to the best brains we can produce in this country. This is of first importance. We must always remember that when the diplomat fails, the soldier must take up the burden.

Secondly, we must have a central Intelligence agency which will tell us what is brewing in every corner of the earth.

Thirdly, we must have a force in being ready to move on a moment's notice to destroy the discovered war chest of the enemy before it is launched—an effective defense establishment to make us secure until the United Nations can perfect its control procedures. This must be properly compounded of the principal U. S. armaments—land, sea, and air.

Fourth, we must keep our weapons modern. This requires great emphasis on scientific development—research and experimentation—and on coordination between industry and the Armed Forces. It has been said that every war begins with the weapons of the last war. It may well be that we were given a preview of the weapons which will dominate the next war in the robot bomb, German rocket, V-2, or our atomic bomb. It may well be, too, that some of the technique which appeared experimentally in the last war may be commonplace and routine in the next—such things as radar, blind bombing.

Must Coordinate Needs of Armed Forces and Industry

While there is grave danger that the war of the future will be a short war of unparalleled destruction, the first blows of which will come through the air, nevertheless, if we are wise, we will maintain naval and land forces, modern and mobile, the whole to be supported by a National Guard and Organized Reserve, and Reserve Officers Training Corps prepared to mobilize and lead the manpower of the nation. Then, too, we must have better plans for the conversion of industry to warfare than we have had in the past for the simple reason that there will be less time, plus the great probability that it will have to be done while the destructive blows of the enemy are raining upon us.

This much is certain. There is the greatest probability that the first battlefields of the next war will be the industrial cities of the United States. No aggressor nation of the future can miss the point that the last two wars were lost by the aggressor because he neglected to depreciate the manpower or destroy the material resources of the United States.

Finally, over all this business of sound organization, modern weapons, and mobilized industry and manpower, rides this dominant fact—no nation is secure unless the citizen places the welfare of his country above his personal self-interest. During the war the national interest was dominant. Now there are many signs and there is grave danger that personal interest and selfish welfare of highly organized minorities are being placed above the national interest, the welfare of all the people. As the first plank in our platform for national security, let us make certain that the future generation is educated to put national interest first.

That, I believe, is the strength of this organization—the American Standards Association. The principles on which it operates, as I understand them, place emphasis on the democratic procedure, on coordination of the requirements of different groups, of industry, the consumer, and the government agencies. I wish you as an organization success in this undertaking which means increased industrial productivity for the success of the nation in war and in peace.

NBS to Issue Navy Packaging Book

It is understood that the National Bureau of Standards is planning the preparation of the Navy Handbook on Packaging and Material Handling; Packaging, Marking, and Loading Methods for Steel Products for Overseas Shipment as a part of the Bureau's series of Simplified Practice Recommendations.

Warwick Elected By Staff Executives

The officers and executive committee of the Conference Committee of Staff Executives of Member-Bodies and Associate Members of the American Standards Association were elected at the annual meeting of the committee November 21:

C. L. Warwick, Executive Secretary, American Society for Testing Materials, *Chairman*

Percy Bugbee, Secretary, National Fire Protection Association, *Vice Chairman*

C. B. LePage, Assistant Secretary, American Society of Mechanical Engineers, *Secretary*

Irene Blunt, Secretary, National Federation of Textiles

W. J. Donald, Managing Director, National Electrical Manufacturers Association

Herman Lind, President, American Institute of Bolt, Nut & Rivet Manufacturers

H. B. Lindsay, Secretary-Treasurer, Grinding Wheel Manufacturers Association

T. E. Veltfort, Manager, Copper & Brass Research Association

J. A. C. Warner, Secretary and General Manager, Society of Automotive Engineers

A report of the meeting will be in our February issue.

Action Scheduled on Consumer Standards

THE rapid progress of work in the Advisory Committee on Ultimate Consumer Goods as reported at the annual meeting reflects the present trend toward greater standardization of vital items in the consumer goods field—

Two new organizations, the Synthetic Organic Chemical Manufacturers Association and the National Federation of Textiles, will be represented on the ACUCG by Leonard S. Little and Irene Blunt, respectively.

Among the new proposed projects, those concerning women's nylon hose, women's house dresses, household insecticides and moth preventives, flammability of fabrics, water repellency of fabrics, and soaps and detergents have been taken up with probable sponsors for preliminary discussion. Committees on flatirons, electric ranges, electric water heaters, hot plates and radial heaters are already at work, while action on the proposed projects on men's dress shirts, aluminum cooking utensils, and towels has been deferred until further study can be made.

Those sectional committees already organized under ASA procedure report the following status of work:

Household Refrigerators, B38—

Three subcommittees have been appointed to prepare standards for refrigerators cooled with ice, electrically driven mechanical refrigerators, and home and farm freezers.

Sheets and Sheeting, L4—

Standards presented by the sponsor, American Hospital Association, are under discussion.

Women's Industrial Clothing, L17—

Associated Manufacturers of Washable Service Apparel have accepted sponsorship for this project. The object of the sectional committee is to rebuild these war standards so that they can become suitable for peacetime use.

Certification Procedures, Z34—

The standard about to be presented to the Standards Council is the first of its kind in the country and is expected to serve as a guide in establishing certification procedure.

Terms Used in Retailing, Z36—

A sectional committee is being formed under the sponsorship of the Bureau of Labor Statistics and an organizational meeting will be held in the near future.

What the Consumer Wants in Standardization

(*Continued from page* 8)

hold buyer. This information used to be supplied on request from the Office of the Bituminous Coal Consumers' Counsel, a federal agency, but is no longer available. A similar example is the American Standards for gas ranges, which also include performance tests. But information useful to consumers now seems to get lost somewhere between the engineering department, testing laboratory, retailer, and ultimate consumer.

The British have anticipated the need of consumer standards that are understandable to the nontechnical person. Their standards for building materials and structure are expressed in clear, simple words with a minimum of technical jargon and no sacrifice of technical competence. The aim is to make them useful to home-hungry citizens. The American Society for Testing Materials has just published a suggested specification form for ultimate consumer goods which also is an excellent model for our use. The sale of standards publications could be enormously increased and their usefulness greatly extended if they were written in language more meaningful to the buyer at retail.

It is the confident belief of many who have given thought to standardization of consumer goods that eventually we will find simpler and better methods of defining and stating information we need about our goods and services. Specification standards and labels are indispensable now, and represent the best we are capable of formulating at the present stage. But we are just beginning. We can expect our consumer goods standards of the future to bear about the same relation to those of today as the Wright brothers first plane does to the Constellation.

For years, Dr Agnew and Mr Coonley have understood that this is the big undeveloped field in standardization. Now the trend of the times is catching up with them, as Dr Roland P. Soule makes clear in a remarkable paper called "A Brief Research in Research", published in *Chemical and Metallurgical Engineering*, July, 1946. He analyzes the rise to dominance in each 20-year period since the Civil War of the products of different branches of engineering, and the reflection of their development in stock market values. During the present era, 1940-1960, he predicts that research is going to serve the consumer more than the producer, and all branches of engineering will combine in a new type of technology with a functional approach. Products will be developed from the view of what best serves the ultimate user. He shows that those who sense such trends first, profit most from them.

Our economic system now is on trial before the world. It cannot prove the strength that we believe is inherent in it, if its vast consumer market is served on the basis of exploiting ignorance and confusion. As consumers, we cannot exercise our function of automatic control unless we have the facts that make our choices meaningful. We need to know what we are buying, not only for our individual protection and satisfaction, but for the sake of preserving the freedom of private enterprise. Regulatory laws and government controls arise among a freedom-loving people only when we fail to cooperate in trying to solve problems of general concern. Through the standardization of consumer goods, we can enable each other to make a contribution, vital and as yet scarcely implemented, toward keeping our free enterprise economy healthy, vigorous, and sound.

—ASA—

Standards Activities

American Standards

American Standards Approved

Steel Socket-Welding Fittings, B16.11-1946
Sponsors: American Society of Mechanical Engineers; Heating, Piping and Air Conditioning Contractors National Association; Manufacturers Standardization Society of the Value and Fittings Industry

Prevention of Dust Explosions—

Code for the Prevention of Dust Explosions in the Plastics Industry, Z12.16-1946 (Revision of Z12.16-1945)

Code for the Installation of Pulverized-Coal Systems, Z12.1-1946 (Revision of Z12.1-1945)

Code for the Prevention of Dust Explosions in the Manufacture of Aluminum Bronze Powder, Z12.11-1946 (Revision of Z12.11-1942)

Code for Explosion and Fire Protection In Plants Producing or Handling Magnesium Powder or Dust, Z12.15-1946 (Revision of Z12.15-1945)

Code for the Prevention of Dust Explosions in Coal Pneumatic Cleansing Plants, Z12.7-1946 (Revision of Z12.7-1942)

Prevention of Dust Explosions in Flour and Feed Mills, Z12.3-1946 (Revision of Z12.3-1942)

Installation of Pulverized Fuel Systems, Z12.17-1946 (applies only to installations prior to 1945; Code on Pulverized Coal Systems applies to new installations)

Prevention of Dust Ignition in Spice Grinding Plants, Z12.9-1946 (Revision of Z12.9-1942)

Pulverizing Systems for Sugar and Cocoa, Z12.6-1946 (Revision of Z12.6-1942)

Prevention of Sulphur Dust Explosions and Fires, Z12.12-1946 (Revision of Z12.12-1943)

Prevention of Dust Ignitions in Country Grain Elevators, Z12.13-1946 (Revision of Z12.13-1943)

Prevention of Dust Explosions in Wood Flour Manufacturing Establishments, Z12.8-1946 (Revision of Z12.8-1942)

Sponsor: National Fire Protection Association

New Projects Approved

Rubber Protective Equipment for Electrical Workers, J6 (peacetime project)
Sponsors: American Society for Testing Materials; Edison Electric Institute

Development of Standards for the Office
Sponsor: National Office Management Association

Standards Being Considered for Approval

Specifications for Methods of Laboratory Sampling and Analysis of Coal and Coke (Revision of ASTM D 271-44; ASA K18.1-1944)

Specifications for Lampblack (Revision of ASTM D 209-41; ASA K26-1941)

Specifications for Bone Black (Revision of ASTM D 210-41; ASA K36-1941)

Specifications for Prussian Blue (Revision of ASTM D 261-41; ASA K29-1941)

Specifications for Chromium Oxide Green (Revision of ASTM D 263-41; ASA K37-1941)

Specifications for Slab Zinc (Spelter) (Revision of ASTM B 6-37; ASA H 24.1-1943)

Sponsor: American Society for Testing Materials

Motion Picture Photography—

Theater Projection Rooms (Revision of American Recommended Practice Z22-.28-1941, to be designated as Proposed American Standard Dimensions for Motion Picture Theater Projection Rooms, Z22.28)

Theater Projection Screens (Revision of American Recommended Practice, Z22-.29-1941, to be designated as Proposed American Standard Dimensions for Motion Picture Theater Projection Screens, Z22.29)

Safety Film (Revision of American Recommended Practice Z22.31-1941, to be designated as Proposed American Standard Definition for Motion Picture Safety Film, Z22.31)

Sponsor: Society of Motion Picture Engineers

New Standards Submitted

Specifications for Soft or Annealed Copper Wire (Revision of ASTM B 3-45; ASA H4.1-1942)

Bronze Screwed Fittings, 125 Lb, B16.15
Sponsors: American Society of Mechanical Engineers; Heating, Piping and Air Conditioning Contractors National Association; Manufacturers Standardization Society of the Valve and Fittings Industry

Surface Roughness, Waviness, and Lay, B46.1
Sponsors: American Society of Mechanical Engineers; Society of Automotive Engineers

Abbreviations for Use on Drawings, Z32.13
Sponsors: American Institute of Electrical Engineers; American Society of Mechanical Engineers.

Standards Being Considered for Reaffirmation

Specifications for Hot-Rolled Copper Rods for Electrical Purposes (ASTM B 49-41; ASA H4.7-1942)
Sponsor: American Society for Testing Materials

Preferred Numbers, Z17.1-1936

New Projects Being Considered

Linemen's Rubber Protective Equipment (peacetime project)

New Projects Proposed

Standards in Optics
Steel Raceways for Electrical Wiring Systems

Withdrawal of Standards Being Considered

Electrical Indicating Instruments (2½- and 3½-Inch, Round, Flush-Mounting, Panel-Type), American War Standard, C39.2-1944

Shock-Testing Mechanism for Electrical Indicating Instruments (2½- and 3½-Inch, Round, Flush-Mounting, Panel-Type), American War Standard, C39.3-1943

Dimensions for External Radio-Frequency Thermo-Couple Converters (120 Milliamperes to 10 Amperes, Inclusive), American War Standard, C39.4-1943

External Ammeter Shunts for Panel-Type Instruments, American War Standard, C39.5-1943

Right Pew, Wrong Church

From "Time" Magazine, October 7, 1946

The landing at Shannon Airport, Ireland, was routine. As the Pan American Airways Clipper (bound for Lisbon from New York) taxied towards the airport terminal, the pilot snapped an order: "Flaps up." The copilot, who had flown many hours in DC-4s, instinctively reached down with his left hand, yanked the lever next to his seat.

But the copilot was not in a DC-4. He was in a Constellation (which has a landing-gear lever where the DC-4 has its flap lever). Instead of the flaps coming up, the wheels came up. The Connie crashed seven feet, on to the runway. The crew and 26 passengers were unhurt. But the $750,000 Connie was damaged beyond repair. Contributing cause to the accident: a safety lock—designed to keep the landing gear from coming up when a plane is on the ground—did not work.

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